

UNIVERSITY OF CHICHESTER
(an accredited institution of the UNIVERSITY OF
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Earthworm disturbances: the reimagining of relations in Early
Childhood Education and Care

by

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ABSTRACT

CHILDHOOD, SOCIAL WORK AND SOCIAL CARE

Social Policy

Thesis for the degree of Doctor of Philosophy

**EARTHWORM DISTURBANCES: THE REIMAGINING OF RELATIONS IN EARLY
CHILDHOOD EDUCATION AND CARE**

Nicola Fairchild

This thesis explores the political and ethical entanglements of Early Years Teachers with human and non-human worlds. Early Childhood Education and Care (ECEC) policy, research and professional practice frame expected ways of working with children. This highly-feminised workforce has historically been presented as deficient. I argue this notion sees them as dehumanised subjects (Snaza, 2015), in need of constant upskilling. Posthumanist theorising was employed to reveal Early Years Teachers in relations with other humans (children, teachers) and non-humans (classroom, outdoor environments, objects, policy) forming more-than-human subjectivities. A post-qualitative methodology was developed to attend to more-than-human entanglements, with material-ethno-carto-graphy proposed as a methodological undertaking pertinent to this inquiry. The reconfigured methods-as-affinity-groups built on ethnography to explore connections within/between four Early Years Teacher case studies. The resultant data generated was mapped and read both literally and diffractively where glow data (MacLure, 2010, 2013) was selected for diffractive analysis.

I theorised the positions of becoming-professional and being-teacher to reveal how subjectivities take either a more material connected or a more normative subject position and employ the metaphor of the earthworm to debate these shifting forms. Data revealed becoming-professional and being-teacher saw wider relational entanglements within indoor and outdoor spaces drove new modes of professionalism. Furthermore, the influence of an online tool, Tapestry, on subjectivities was explored. Additionally, vital agentic materiality (Bennett, 2010) and cyborg figurations (Haraway, 1991) were encountered in ECEC classrooms. Finally, the influence of nature has been explored where Indigenous ontologies trouble traditional vistas.

Generative ways to view the production of Early Years Teacher subjectivities show that human and non-human worlds are always in flux. The more-than-human moments reveal the interplay between becoming-professional and being-teacher as a re-humanising enactment with subjectivities distributed across human and material bodies. These relations are a counter movement to the reified professional in policy, research and professional practice.

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DECLARATION OF AUTHORSHIP

I, **Nicola Fairchild**

declare that the thesis entitled

Earthworm disturbances: the reimagining of relations in Early Childhood Education and Care

and the work presented in the thesis are both my own, and have been generated by me as the result of my own original research. I confirm that:

- this work was done wholly ~~or mainly~~ while in candidature for a research degree at this University;
- ~~where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;~~
- where I have consulted the published work of others, this is always clearly attributed;
- where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
- I have acknowledged all main sources of help;
- ~~where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;~~
- parts of this work have been published as:

Fairchild, N. (2016a) 'Working in the umbra: methodological uncertainty and affective flows', paper presented at Gender, Work and Organisation Biannual Conference, Keele, June 2016.

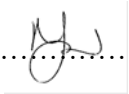
Fairchild, N. (2016b) 'Plugging into the Umbra: Creative experimentation (in)(on) the boundaries of knowledge production in ECEC research', *Reconceptualizing Educational Research Methodology*, 7(1), 16–30.

Fairchild, N. (2017a) 'Cyborg fusions in a (class)room of goddesses', paper to be presented as part of Taylor, C. and Fairchild, N. 'Research-Creation-Workshop: Viscous Porosity and the Micropolitics of Bodily Fusions' at the Gender and Education Association Conference, Middlesex, June 2017.

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Fairchild, N. (forthcoming) ‘Segments and Stutters: Early Years Teachers Becoming-
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Signed:.....

Date:...5.6.17.....

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I remember as a child of about 7 or 8 playing at school with my friends. At the time there was a television series called Blake’s Seven, space travellers and rebel fighters against a totalising force. I always wanted to be one of the adventurers but I remember my role was to stand near the playing field wall and play the part of Orac – the computer! The other adventurers would come over to the Orac-Nikki hybrid and ask me questions which I would duly answer. I now realise that this was part of what set me on my journey. I have always been a component of this cyborg-Orac-Nikki entanglement and have always liked finding answers to questions. This PhD journey is merely a continuation of this entanglement and I now realise becoming-Orac is not a bad place to be.

Finally, a mention of two family members who are no longer here, both of whom died in 2017 – my father-in-law Roy Fairchild and my uncle Nigel Allain – Rest in Peace.

Abbreviations

ANT	Actor Network Theory
BERA	British Educational Research Association
BwO	Body without Organs
CWDC	Childrens Workforce Development Council
DCSF	Department for Children, Schools and Families
DfES	Department of Education and Skills
DfE	Department for Education
ECEC	Early Childhood Education and Care
EYFS	Early Years Foundation Stage
EYITT	Early Years Initial Teacher Training
EYP	Early Years Professional
EYPS	Early Years Professional Status
EYT	Early Years Teacher
EYTS	Early Years Teacher Status
NCTL	National College for Teaching and Leadership
Ofsted	Office for Standards in Education, Children’s Services and Skills
PPA	Preparation, Planning and Assessment time
QTS	Qualified Teacher Status
RECE	Reconceptualizing Early Childhood Education
TtT	Troops to Teachers
VwO	Voice without Organs

CHAPTER ONE:

RHIZOME ENTRY POINT

It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what descriptions describe descriptions, what ties tie ties. It matters what stories make worlds, what worlds make stories.

Donna J. Haraway (2016: 12)

What is this thesis?

This thesis is a story about matter, bodies and policy and, as Donna Haraway suggests, a story of knots and ties and how worlds are made. The world I seek to explore is that of the professional lives of Early Years Teachers and how these lives are knotted and tied with children and the non-human¹ in multiple forms. I draw on my own experiences as an Early Years Teacher as I wanted to consider worldly justice for a group composed predominantly of women who had been marginalised in policy by being given the title of ‘Teacher’ without any of the associated benefits (remuneration, status, and professional recognition) (Hevey, 2013). This lack of recognition and benefits has been problematized as exploitative of women who were engaged in work which was perceived as largely for women (for example Canella, 1997). However, I was presented with the opportunity to put theory to work to reveal new conditions of possibility, and wider ethical and political moments for Early Years Teachers. The desire to work with theory was driven by both my encounters with data and my wider engagements with contemporary Posthuman and Feminist New Materialist thinkers. Data generated by/in this inquiry allowed me to make empirical decisions about the theories employed in this thesis which reconfigured possibilities to include both non-human and human worlds. These opportunities presented themselves due to the material nature of Early Years settings and schools, and the experiential engagement Early Years Teachers and children have with the material world (Pacini-Ketchabaw *et al.*, 2016).

In this thesis I have drawn on a range of Posthuman and Feminist New Materialist theorists to support and exhaust my theoretical dialogues with this inquiry which aims to push

¹ The term non-human has been applied to all matter, materials, and the natural world which are not human corporeal bodies (Braidotti, 2013). Additionally, the term more-than-human has been used to consider how objects have agency and vibrancy (Bennett, 2010) and how these are relationally co-implicated in human lives (Whatmore, 2006).

past current meta-narratives of policy and expected professional practice. Additionally, I will engage in a post-qualitative inquiry where human and non-human material engagements are considered. This will allow as a movement beyond the textual focus of traditional qualitative research. What I reveal is the way in which productions of Early Years policy and the influence of neo-liberalism have become embodied in the meta-narratives of research which drives Early Childhood Education and Care (ECEC) contemporary professional practice. Moreover, encounters with my data had the effect of reframing this project driven by the way in which material engagements manifested in Early Years Teachers' experiences of subjectivity. These material and human relations provided a counter-point to the professional expectations of the neo-liberal education machine and opened a debate on the affect of the material world and how bodies (corporeal and non-corporeal) became enmeshed. An example of these relational engagements explored in this thesis is the way Early Years spaces (primarily classrooms and gardens) impact on, and are impacted by Early Years Teachers (see chapter four, pages 93 – 143) for a wider exploration). Here affect is drawn from Deleuze and Guattari (1987), where it is concerned with bodily capacities and how bodies influence each other. The encounters in this thesis map the connections and relations of the materiality of ECEC settings and the Early Years Teacher. In some instances these relations take the form of materiality and the Early Years Teacher, at other junctures children are enmeshed in these connections. These entanglements and explorations are an opportunity for a polyphony of voices to be heard from those whose voices can sometimes be unheard; these being the material world in relations with Early Years Teachers and children.

Propositions for this inquiry

Throughout this thesis I have worked with the notion of the proposition, this concept for thinking-in-movement draws on the work of Manning and Massumi (2014) who employ the proposition to trigger processual thinking and connectivity (see also chapter three, page 77). Propositions are activators of potential of the, as yet, unknown and my decision to take this approach was based on a desire to move away from the fixity of the 'research question' and 'research aims' which seek to reify and locate the purpose of research inquiry. In this way I consider a more affirmative (Hohti, 2016) and generative (Van der Tuin, 2015) means to explore the entanglements of Early Years Teachers. This desire to enact a more affirmative critique within my work is mediated by the development of English ECEC professionalism and settings and how the move from 'care' to 'education' has been manifested in changes in policy

over the past 30 years (Osgood *et al.* 2017).² These debates have been located within more neo-liberal views of ECEC where children are prepared for school and follow curricula framing (DfE, 2014a) facilitated by Early Years Teachers (Osgood *et al.*, 2017). The divisive and hierarchical policy structures surrounding Early Years Teachers and ECEC settings are produced by an expected set of standards practitioners need to meet as part of their initial training and ongoing development (Nutbrown, 2012; 2013). Here the Early Years Teachers is posited as precarious and dehumanised (Snaza, 2015) in need of continuous training and development to become more professional. Although these notions have been widely problematized (see for example Dahlberg *et al.*, 2007; Miller, 2008a; Osgood, 2010; Moss, 2014) I intend to build on this work to provide a new affirmative critique which considers both humans and non-humans in ECEC settings (examples in this thesis include relation with classrooms [pages 97 – 123] and gardens [pages 124 - 132]).

Therefore, my initial propositions for this thesis are ‘explore affirmative more-than-human Early Years Teacher relations’ and ‘enact conditions to move beyond the dehumanised precarious feminised ECEC professional’. By paying due regard to both human and non-humans in ECEC I intend to explore the way in which material entanglements are enmeshed in Early Years Teacher subjective experiences. These encounters generate a vibrant and connected distributed subject which flows between what I entitled becoming-professional and being-teacher (for example see page 93). Within each chapter these propositions are further developed, for example chapter two is concerned with ‘what has been framed in successive policy and professional practice discourses for the Early Years Teacher’ where the problematization of policy development and expectations of professional practice are explored (see pages 23 - 50). This then leads to chapter three with the development of a methodological underpinning for this inquiry where the proposition ‘create generative post-qualitative inquiry’ is put to work (see pages 51 - 92). Furthermore, in chapters four and five data generated within this inquiry is explored and a materially informed diffractive analysis considers the propositions ‘practice entangling with Early Years Teacher assemblages’ (see pages 93 – 143 and 144 - 194). Chapter Six weaves together these propositional threads put to work in this thesis and, as Haraway writes, considers ‘what stories make [*Early Years Teacher*] worlds’ (2016: 12).

² This has been explored more widely in chapter two pages 28 - 45.

Mapping the thesis development

Within this thesis I draw on this notion of the dehumanised human and explore how opening up more material dimensions can re-imagine Early Years Teachers and children as more-than-human. I develop the work of Luke Bennett (2016) where he discussed the interplay between Posthumanism and education and postulated the notion of the ‘world with us’ (Bennett, 2015: 61) as a term to describe how humans notice the Posthuman world and understand their entanglement with it. He explored how an attention to the material world in an educational context promotes a sensitivity to the non-human that ‘retains a link both to the human and to fundamental commitments to human advancement’ (Bennett, 2016: 72). The work contained within this thesis charts the development of the Early Years Teacher with regards to policy, research and expected professional practice. The neo-liberal and human capital theory of education posits the child, and I argue the highly-feminised professional of the Early Years Teacher, as a less-than-human linking to Snaza’s (2015) notion of the doubled human in need of education to become more human. Furthermore, the neo-liberal subject is afforded certain freedoms which are surrounded by wider control mechanisms. Deleuze (1992) argues how these controls, which he called ‘modulations’, give the subject a perceived freedom but can also produce the individual who has limited agency. I debate how the doubled human (Snaza, 2015) is enacted via a repetition of the embodiment of policy which frames the potential worker and sees women and children as objects in tension with these neo-liberal aims. For example, the implementation of an early years curriculum (DfE, 2014a) where Early Years Teachers are able to frame the learning opportunities based on their own professional judgements but under scrutiny of regulatory bodies such as Ofsted (Ofsted, 2015).³

What this thesis offers

I offer a provocation, a means to elicit responses, to a different way of seeing/doing/feeling/thinking ECEC. I have done this by developing two fluid positions of early years teaching, that of becoming-professional and being-teacher (see page 100 and page 107 for examples of this). These two positions note the Early Years Teacher entanglement with an expanded form of relational entanglements in ECEC settings. They are not binary in nature but detail the way in which tensions between expectations of policy and professional practice which surround early years teaching are enacted. Becoming-professional and being-teacher generates

³ Ofsted or the Office for Standards in Education, Children’s Services and Skills sets the regulatory and statutory framework all EYFS registered settings and schools should follow (Ofsted, 2015).

new more-than-human entanglements for Early Years Teachers which move beyond the schizoid human centred notion of identity to a new form or relationality in early years teaching (for examples see page 100 and page 107). This provocation is presented as a cartography which reveals an entanglement where complexity, movement, affect, bodies, matter, and materiality are in constant productive relations with each other. My work does not seek to fix or reify the teacher: child couplet, it engenders thinking differently about ECEC by exploring the productive nature of wider relations-in-the-world. Moving beyond the discursive it seeks to disrupt the nature: culture divide and is open to the wider possibilities of the world. It offers a vital and dynamic way of seeing/thinking/experiencing life in the broadest sense, as movement and provocation and entanglement and exploration of the not yet known but always with us. These types of engagements have been entitled 'Staying with the Trouble' by Haraway where explorations are 'entwined in myriad unfinished configurations of places, times, matters, meanings' (2016: 1). This has been exemplified in my thesis where I have explored the use of a tool entitled Tapestry, which is an online record of the child's achievement. In the analysis I discuss how Tapestry-as-body produces certain enactments of Early Years Teacher professional practice (see page 153-158).

Feminist underpinnings for this research

As noted in page 1, I was wanting to explore and entangle with worldly justice for a group of women which I argued had been marginalised by policy (Canella, 1997; Hevey, 2013). Furthermore, the Early Years workforce is highly feminised, this has been problematized by researchers who note the perception of early years practitioners as low skilled and low paid undertaking employment akin to mothering (Canella, 1997; Cameron *et al.*, 2002; Osgood, 2016a: 2012) (page 24). These feminised notions are in tension with a neo-liberal model of an ECEC market (page 24) and the human capital theory of ECEC (page 26) which has been considered as a more masculinized view of ECEC (see Osgood, 2006a). Furthermore, Snaza (2015) noted that neo-liberal education sought to rehumanise those who has been seen as dehumanised, and that women were a component of the dehumanised (page 7).

There are challenges with holding a desire to engage with feminist politics when putting Posthumanism to work. As Hinton (2014) questions how can feminist thought be engaged with when Posthumanism required a de-centring of identity which moves the subject away from critiques of structural inequalities and gender hegemony experienced by women. Furthermore Grosz (1994) critiqued Deleuze and Guattari for aspects of phallogocentric hegemony within their

theorisations of becoming-woman (Deleuze and Guattari, 1987). I have debated this contradiction on page 58 where I note that Colebrook (2002) has argued that even though becoming-woman was seen as a starting point for all wider becomings, the notion of Deleuzian difference (page 55) could allow women to move from the binary othering of the essentialisation of man: woman to reveal new feminist possibilities. Van der Tuin (2015) has traced the development of generational feminism which builds on, and pays heed to, previous waves of feminist thought providing an affirmative means to employ emergent feminist tropes which are materialised via Posthuman thought. For example, Van der Tuin (2015) explores how Deleuze and Guattari (1987) and the work of Feminist New Materialist (for example Barad, 2007; Alaimo and Hekman, 2008; Braidotti, 2011b) can provide wider conceptualisations for a rethinking of (gendered) identity. Drawing on generational feminism I note that Posthuman theorising can allow for different questions to be asked (as noted in the propositions for this inquiry on pages 2 – 3) and that ‘feminist nowadays no longer read becoming-woman as problematic’ (Van der Tuin, 2015: 55) but harness the potential for affirmative critique of power structures that seek to binarize and subjugate the female identity. I have put this to work with the Feminist New Materialist methodology of diffraction (see page 89) to explore how difference can become enmeshed in human and non-human life.

Posthumanism explored

The term Posthumanism has been circulating since the 1950s but became used more readily from the 1990s. Some examples of contemporary Posthuman debates include relations with technology (see *How We Became Posthuman*, Hayles, 1999) and a re-conception of human identity (see *A Cyborg Manifesto*, Haraway, 1985). Wolfe (2010) considers that more recently there have been different and sometimes competing meanings in circulation some of which are explored in this thesis. The ‘Post’ does not refer to a replacement for humanism, but an acknowledgement of a different philosophical position. Posthumanism allows for a rethinking of the human subject moving away from taken for granted modes of existence. For some this engagement draws on new material dimensions which consider wider human and material subjectivities positioning a new ontology of the material (Coole and Frost, 2010a). Additionally, Feminist New Materialists, such as Barad (2007), Coole and Frost (2010a) and Bennett (2010), consider matter to have its own vitality which leads to ascribing agency to material phenomena. Although this notion of material agency has been critiqued (for example Abrahamsson *et al.*, 2014), there is a growing body of work on engaging with materiality and subjectivity (such as Barad, 2007; Olsson, 2009; Grosz, 2010; Lenz Taguchi, 2010; Hekman, 2010).

I argue that Posthumanism moves forward the ECEC debates and initiatives to democratise and reconceptualize, as it seeks to move beyond solely human notions of mastery, power and privilege. Carlson postulates that Posthumanist theorising:

calls for forms of democratic education, curriculum, and pedagogy that deconstruct the common sense, taken-for-granted naturalness of humanism, not from an antihumanist perspective, but as a movement beyond the limits and contradictions of the humanist project while still maintaining the modernist and humanist projects of rights, justice, equity and freedom. (Carlson, 2015: x).

Furthermore, Snaza and Weaver (2015b) have suggested that a human-centred view of the world stifles political debate, as it promoted notions of human mastery with the non-human as other. Snaza (2015) also explored how the post-industrial capitalist view of education produces a curricula framing which ‘humanises’ those who are not fully educated. He entitled this the doubling of the human, where teachers address students (children) who are ‘*both* presently human beings...and as beings who are *not yet* human’ (Snaza, 2015: 20 emphasis in original). Included in this miasma of the dehumanised were women, the poor, slaves, and colonized natives, which were all ‘conceptualized as *potentially but not yet* human’ (Snaza, 2015: 25 emphasis in original). These debates reveal a commitment to Posthumanism is driven by a critique of the prevailing order: it is what Snaza and Weaver call ‘a radical commitment to experimenting with the *new*, unpredictable, perhaps seemingly impossible forms of relations’ (2015b: 10 emphasis in original).

Moreover, Posthumanist thinking allows for the decentring and rethinking of the human subject revealing a different view of the human within a social and material world which engages with the material and more-than-human (for example, Coole and Frost, 2010b). I argue for an attention to be paid to the relationality and materiality which is an intrinsic part of ECEC. Revealing connectedness as more-than-human, I offer an alternative means to explore Early Years Teachers and children’s enactment within the world. Furthermore, when education is solely focussed on human endeavour the non-human risks becoming a container or a stage for educational engagements to play out on. Working within the Posthuman turn will reverse this foreshadowing of the non-human world. By reimagining ECEC relations in this way I aim to provide an ethical and political response to the deficient human, where more-than-human sees subjectivity diffused and distributed in relations between humans and non-humans. Moving this forward, my thesis explores the situated knowledges (Haraway, 1988) of Early Years Teacher relations as part of the fluid enactment of expectations of policy, research and professional practice. These are developed within chapters one and two where methodology and literature are

problematized and are operationalized in chapters three and four where the data revealed within the inquiry are diffractively analysed.

Education as a human-centred endeavour

However, education is undoubtedly a human-centred endeavour, with the modern view of education, particularly in England, being to promote social mobility and to address disadvantage (Waldfoegel, 2012; Bertram and Pascal, 2014). These aims have trickled down to ECEC with the implementation of funded hours and early intervention (Allen, 2011), which have led to critical questions surrounding the purpose and benefits of ECEC. These have been problematized by scholars such as Dahlberg *et al.* (2007) and Moss (2014), who question whether the current neo-liberal world view of education as human capital has clouded the argument and narrowed the discourse to one of a school-ready child who is prepared for life in employment. Meta-narratives have been further reinforced by English Government policy, where the curricula framework for ECEC discusses purposeful play and preparation for school. Concomitantly, the professional identity of those who work with young children has been drafted to support the curricula expectations with the titles of Early Years Teacher (DfE, 2013d) and Early Years Educator (NCTL, 2013) defining these new professional roles. These more neo-liberal visions can seek to foreclose diverse ways of seeing/thinking/doing ECEC. Moreover, there is a movement which searches for a more democratic approach to ECEC and scholars belonging to groups such as ‘Reconceptualising Early Childhood Education’ have postulated alternative ways of seeing/doing/being an ECEC researcher and/or practitioner (Bloch *et al.*, 2014). Furthermore, the Posthumanist turn has started to emerge in ECEC research. Scholars such as Olsson (2009), Lenz Taguchi (2010), Jones and Holmes (2014), Otterstad and Waterhouse (2015) and Osgood and Giugni (2015b) have employed the work of Deleuze and Guattari and Feminist New Materialists to reveal new entanglements with the non-human in more-than-human worlds. It is in this vein that my work serves as a disruption to evidence-based ECEC policy, research, and professional practice, which seeks to privilege human experiences.

Exhausting theory

Gulson *et al.* (2015) consider how the benefit of a close engagement with theory promotes perspective, greater knowledge, increased capability to argue a position and a possibility for transformation. They counsel there is ‘no one way of getting theoretical engagement right and that the onus lies on each of us to develop considered take ups’ (Gulson *et al.*, 2015: 2). Taking

a lead from MacLure, who argues theory should ‘offend and interrupt’, (2010: 277), has allowed for a dialogue to offer possibilities for opening up new thinking as opposed to reproducing what has gone before. In an essay entitled ‘The Exhausted’ Deleuze (1995) debates the notion of exhaustion, where being exhausted is more than human tiredness, it is a means to explore and name the possible world. Furthermore, Deleuze (1995) considers how language can be used to trouble other potential worlds and can be pushed to its limits when it can move beyond its descriptive and naming mode. He also considers how language is processual and can create new spaces of possibility and this model of exhaustion unfolds within this thesis.

Human participants

When working with the propositions ‘explore affirmative more-than-human Early Years Teacher relations’ and ‘enact conditions to move beyond the dehumanised precarious feminised ECEC professional’ and considering the feminist underpinnings for this inquiry I explore how this could be achieved via the selection of the human participants. The ECEC practitioner has been problematized in research as deficit, for example the notion of ‘hair or care’ (Vincent and Braun, 2010; 2011 on page 35), or the notion of working class women in caring professions (Skeggs, 1997; Colley, 2006 and Osgood, 2012 on page 28). It could be questioned as to how the selection of my participants might allow me to explore difference and relationality within ECEC settings as the selection of the role of Early Years Teachers already pre-supposes a wider opportunity to enact difference as afforded to those of graduate status. However, I argue that although Early Years Teachers may have more perceived freedom to enact a multiplicity of positions they are still positioned as a deficit due to the lack of parity with qualified teachers (Hevey, 2013). This contradictory position is divisive as, although there is the potential for a wider enactment of difference, I argue that expectations policy could still precludes this as the profession seeks for wider legitimacy (Nutbrown, 2012; 2013). In fact these tensions were highlighted in the data as Hannah feels deficient for not producing sufficient observations and assessments (page 154) and Claire feels the need to defend her position on supporting children’s learning (page 140).

Throughout this inquiry I have worked with four human participants (Early Years Teachers) (see page 67 for details of sampling). As an introduction there was Hannah, a reception teacher and Head of Foundation Stage at an all-girls Independent private school. The school was located in a coastal city in the South East of England situated across two sites. Hannah’s classroom was in a building on one of the sites, within the school grounds which

housed the reception class and the nursery class. At the time of the research there were six children in the reception class and a further 14 in the nursery class, these numbers fluctuated each year and were based on parents choosing to place their children at the school. Although the school was classed as Independent, the Headteacher had chosen to follow the Early Years Foundation Stage (EYFS) (DfE, 2014a)⁴ play based curriculum covering children from birth to five (including the reception year) which is statutory for all other ECEC settings. Next, I introduce Sarah, a child-minder in her own home based in a city location in central South East England; she took children from 6 months to age five (or earlier if the child was due to start compulsory education). Being a registered childminder Sarah needed to follow the EYFS statutory requirements but as a sole trader every aspect of the framework was her responsibility. Sarah had four children in her care during the research, she also worked closely with two other childminders which enabled them to share responsibility for a larger group of children. The third participant I introduce is Rose, a Deputy Manager and Special Education Needs Coordinator (SENCO) at a Montessori pack away preschool in a rural village location in the South East of England. The preschool was based on the Montessori framework and philosophy which saw the child as a constructor of their own learning. The Montessori methods uses a range of specifically designed materials and techniques to allow children to take some control of their classroom experiences (Isaac, 2012). The preschool had 36 children registered, although they did not all attend each day, this was coupled with five full and part time staff. A pack away preschool is generally staged daily within a church or village hall and follows the EYFS statutory requirements. Finally, I introduce Claire, a nanny and ECEC entrepreneur based in a semi-rural location in the South East of England. Although an Early Years Teacher, she no longer worked in a setting which employed the EYFS but had decided to focus on her role as part time nanny to two children. During the research she was also a part time lecturer at a Further Education College, although this role ended whilst the data collection was taking place. Throughout this thesis data generated with the participants has been explored; here the term participant refers to either the Early Years Teacher's named above, the colleagues they worked with, the children in their care or the non-human bodies which were in relations with the humans. Where human participants are discussed I have allocated them pseudonyms and Appendix 2 (page 219) provides a more detailed background on each of the four locations.

⁴ All future uses of the EYFS refer to the DfE, 2014a version.

Development of the thesis

There have been many versions of this thesis as my understanding of being a researcher in an entanglement with Posthumanism has grown and changed. This metamorphosis has included close reading of theory, in particular the work of Deleuze (for example 1983; 1993; 1994) and Deleuze and Guattari (for example 1983; 1987), with each reading presenting openings, paradoxes and juxtapositions. The Early Years Teacher inhabits a world which revolves around their engagement with the social and the material, the child and the wider environment (spatial, temporal, and policy) and it is this attention to materiality which allows for the application of Posthumanist theorising. Furthermore, the work of Deleuze and Guattari has been considered a 'toolkit' (c.f. Deleuze in his interview with Foucault: Foucault, 1977; Coleman and Ringrose, 2013a) and putting these concepts to work with Early Years Teachers can allow for the production of something new, insights not yet thought or discovered. This is exemplified in the books *Deleuze and Research Methodologies* (Coleman and Ringrose, 2013b) and *Posthuman Research Practices in Education* (Taylor and Hughes, 2016) where vitality and relationality between humans and non-humans are revealed.

It is interesting to consider whether Deleuze and Guattari would have described themselves as Posthuman. Braidotti (2006a) discussed how, in her view, Deleuze and Guattari attended to real bodies and real materiality. Furthermore, she ascribed the Posthumanist turn to Deleuze and Guattari when she considered how they reframed and reimagined the notion of identity. Additionally, Coole and Frost (2010a) argue that although it cannot be denied that Deleuze's work was highly influential in the development of Posthuman thought, Deleuze did not necessarily position himself as Posthuman. For the purpose of this thesis I will use the term Posthumanism to encompass the work of Deleuze (for example 1983; 1993; 1994; 2001) and Deleuze and Guattari (for example 1983; 1987), but also to acknowledge the wider possibilities made available by the body of Posthumanist writers (including Braidotti, 1991; 2002; 2011b; Barad, 2007; Coole and Frost, 2010a; Grosz, 2010; Van der Tuin and Dolphijn, 2010). By taking this philosophical position I will attend to the ethical relationships between humans and non-humans within more-than-human entanglements as a means to blur the primacy of human privilege.

Earthworm disturbances

Throughout this thesis I will use the earthworm as a figuration for thinking. I argue the earthworm can act as a metaphor and a site of disturbance of traditional ways of thinking. In this instance thinking is with regards to the expectations concerning the Early Years Teacher and their status as promoted by a range of policy, research and professional practice.⁵ My inspiration for developing earthworm disturbances came from a collaborative piece of work on how earthworm figurations can disrupt a conference space (Benozzo, Carey, Cozza, Elmenhorst, Fairchild, Koro-Ljungberg and Taylor, in progress). Furthermore, I was drawn to the work of Barad (2014), who suggested that re-turning is a process ‘earthworms revel in while helping to make compost...turning the soil over and over – ingesting and excreting it, tunnelling through it, burrowing, all means of aerating the soil, allowing oxygen in, opening it up, breathing new life into it’ (Barad, 2014: 168). During a discussion with Benjamin Noys we debated the etymology of the word human. Minami (2009) traces how the etymological roots of the word human (Latin *Homo*) is drawn from *humus*. Furthermore Lorimer (2016) noted how the word human was entangled with the Latin word *humus*, meaning soil or ground. This led to further considerations of the multiple nature of the figurations used within Posthuman work. For example, in a short paper Haraway noted ‘we are all compost, not posthuman’ (2015: 161), for her compost is a means to re-engage with the environmental debate on humans ever greater influence on the sustainability of the Earth’s resources. She further explores this theme in *Staying with the Trouble* (Haraway, 2016), when she reimagines humans as humus and part of a wider composting with humanities as humustities. Here, the notion humus is a means to decentre the human from the world with the compost pile a site for mattering and re-membering where relations and connections can occur.

Earthworm as a disrupter and agitator of identity

In this thesis I employ the earthworm as a disrupter and agitator of identity and subjectivity (as per the work of Barad, 2014 and Haraway, 2016). It allows me to decentre the human from solely their psyche and consider the production of relations within more-than-humans entanglements. The figuration of earthworm disturbances is put to work with Posthuman theorising to activate a reimagining of the Early Years Teacher which is co-implicated with the meta-narratives of policy and expected professional practice. I argue that earthworm

⁵ This is discussed and problematized in chapter two pages 23 - 50

disturbances can be a form of what MacLure (2015) entitled clinical practice where a (re)turning of expected notions of what it means to be an Early Years Teacher can be challenged, where earthworm tunnels are rhizomatic connections to new ways of thinking/feeling/doing ECEC inquiry. This (de)compo(s)(t)ing of identity and an openness and attention to materiality will allow me to reveal what happens in the middle of things.

Earthworm connections to Posthuman theorising

Earthworms can reveal wider connectivity to Posthuman theorising, for example rhizomes and assemblages. Deleuze and Guattari (1987) use the notion of the rhizome to detail a network of relations and connectivity of things. It is a system that follows no specific pattern or rules of organisation with multiple, non-hierarchical entry and exit points (Deleuze and Guattari, 1987) being non-linear with a mantra of ‘and....and....and’ rather than ‘either/or’. A rhizomes’ characteristics include connectivity and heterogeneity where the rhizome ‘ceaselessly establishes connections’ (Deleuze and Guattari, 1987: 6) and can connect to anything, the analogy being given as a tuberous root system with connections and nodes on planes rather than in a linear fashion. The rhizome is relational to an assemblage as the assemblage allows for the collection and coalescence of the relations within a rhizome. Furthermore, Deleuze and Guattari (1987) suggest that the relations that form an assemblage can be draw from the social, cultural, material, political and discursive and have an existence independent of human bodies. The rhizome is always ‘in the middle, between things, interbeing, *intermezzo*’ (Deleuze and Guattari, 1987: 26). It is this middle where the earthworm can burrow and follow the connections within the rhizome/assemblage. As Deleuze and Guattari note the middle is where ‘things pick up speed’ (1987: 27) and I use the earthworm figuration to explore rhizomatic connections.

Archive and Anarchive within chapters

Activating thinking-in-movement⁶ is an integral part of research-creation events. The event-encounters in this thesis draw on the work of SenseLab (2016), part of which is with regards to

⁶ Here movement is more than a body travelling through space. The notion of movement draws on Massumi (2002) who stated bodies move and feel simultaneously and these co-constitutive events produce wider connectivity. Furthermore, Manning (2007; 2013) details two possibilities for movement, relative (bodies moving in inert space) and absolute (bodies moving and influencing/being influenced by space in constant feedback and connectedness) – see page 76.

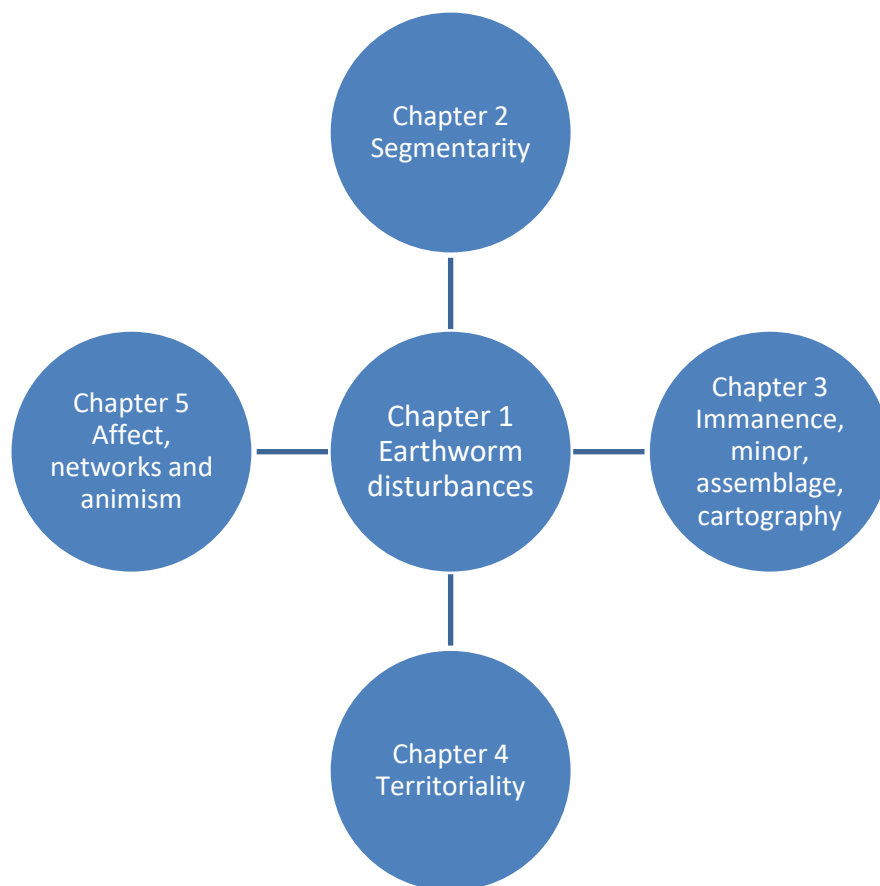
the archive and the anarchival. Murphie discusses the archive as an organization within which items and things are organised and categorised, he states archives ‘share and arrange this potential for feeling’ (2016a: 41). Here, the past and possible futures are stored and the potential they generate can be revealed. Furthermore, archives generate power over people and the social world as they have a political dimension. Murphie (2016a) also detailed the archive generates desire, promise and control but paradoxically it can also confirm what we know thwarting the desire to know differently. However, the anarchival operates at the thresholds of the archive, the in-betweens where happenings occur. Massumi (2016: 6 emphasis in original) details that the anarchival is not a documentation of past activity, it is a ‘*feed-forward mechanism*’ which is generated from the archive and reveals lines of potential occurrences of phenomena. The anarchival becomes the concept for thinking-in-movement, processual and diffractive revealing the new within/between the contents of the archive. Although the anarchival is an activator there is always a chance of returning to sedimented, stratified places where the archive reclaims the same. I argue that the anarchival is a place/space where micro-political entanglements can be imagined, it is a movement/moment of earthworm disturbances which (re)turn expected meta-narratives of policy and professional practice to reveal new becomings and imaginaries.

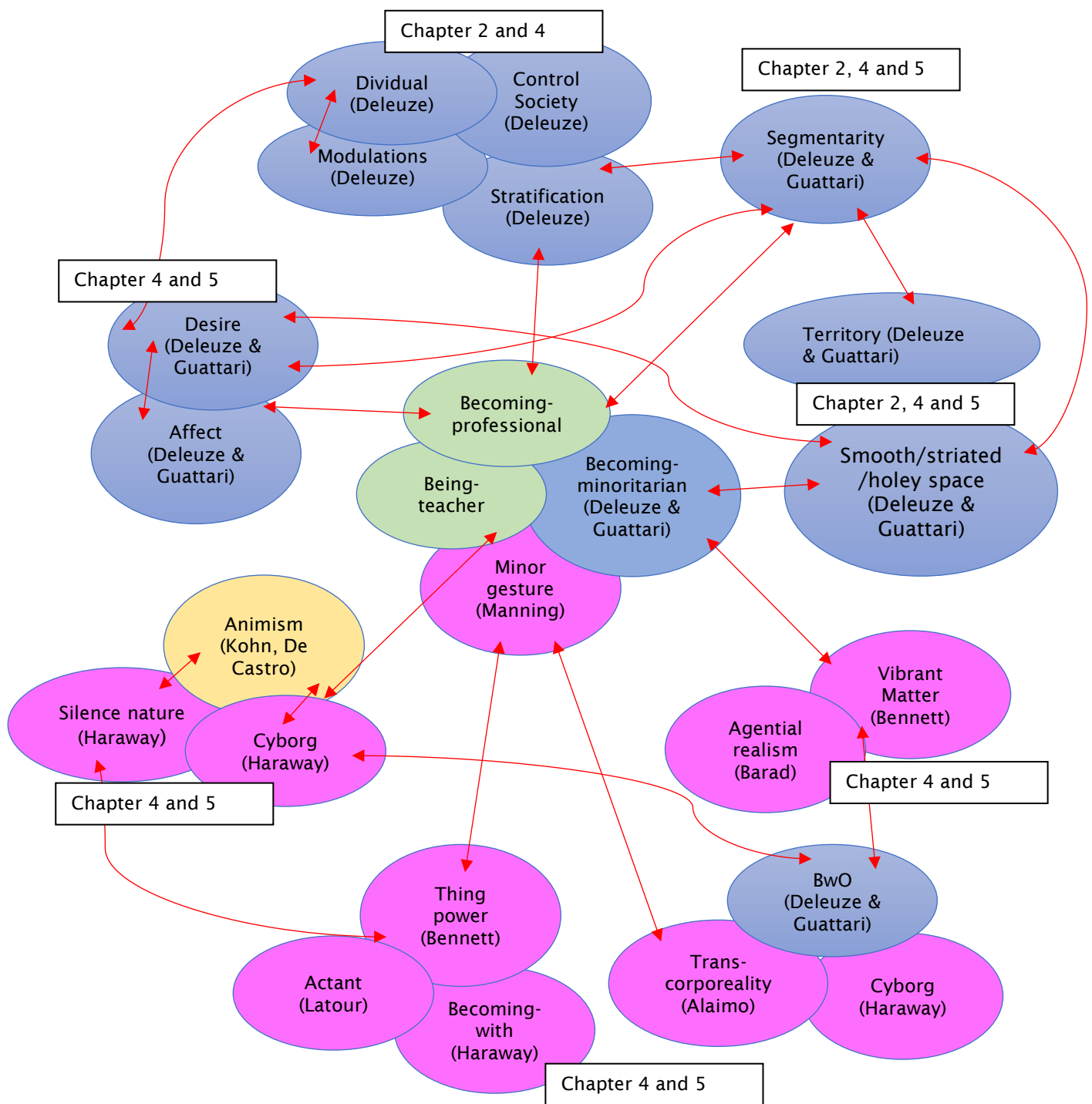
There are a proliferation of concepts activated within this thesis from both Deleuze and Guattari, Feminist New Materialism and Indigenous ontologies. The selection of the concepts was driven by the data with/between/through the non-human and human participants. Initially a radial pattern notes the connections within and between the chapters. To highlight the complexity of the encounters an expanded radial was selected to present these concepts as it details the complexity, progression of the application of concepts as the inquiry proceeded. Each section reveals a series of encounters with Early Years Teachers, children, ECEC settings, policy, matter and theory. Here putting the range of concepts to work enriches the relationality of the entanglements and acts as both returns and progression as the Early Years Teacher moves between/within/through becoming-professional and being-teacher.

Considering these concepts in a more linear fashion sees chapter one as a site of earthworm disturbances where the earthworm becomes a means to explore the distributed subjectivity of the Early Years Teacher. The earthworm disturbances become the centre of the radial as they work within/through the remaining chapters to disrupt aspects of thinking. In chapter two Deleuze’s work on ‘societies of control’ (1992) notes the change in power dynamics which I have traced through policy and professional practice discourses. This becomes enriched with segmentarity (Deleuze and Guattari, 1987) as neo-liberal capital views of ECEC are encountered (pages 23 - 50). Within chapter three I note the methodological entanglements with immanence, the minor, assemblages and cartography (page 51 - 92) which are in relations with each other as the methodology develops. Moving into chapter four I argue

ECEC spaces are territories which become enriched with smooth/striated spaces and segmentarity (Deleuze and Guattari, 1987) (pages 93 - 143). In chapter five ECEC practices of assessment encounters desire, affect and segmentarity as the Tapestry machine is enacted (page 146 - 159). There are also networked encounters with Bodies without Organs (Deleuze and Guattari, 1987), trans-corporeality (Alaimo, 2008) and cyborgs (Haraway, 1985) as more-than-human fusions are revealed (page 160 - 164). Furthermore, I argue ECEC classroom and garden materiality enmesh with matter flows, thing power (Bennett, 2010) and actants (Latour, 1996) (page 164 - 174). Moreover, ECEC outdoor spaces entangle with cyborgs (Haraway, 1985) and animist dances (Viveiros de Castro, 2004, 2009; Kohn, 2013) which note the interplay between the natural world and humans (page 181 - 192).

Figure 1 – Cartographic mapping of concepts throughout the thesis





I argue that by employing these different ontologies which diffract into each other I can pay attention to disrupt, displace and deterritorialise thinking about encounters and events. Lenz Taguchi (2017) notes how attention to different ontologies moves us from normalised thinking to creative experimentation and that tracing and mapping concepts allow particular problems to be apprehended (Deleuze and Guattari, 1994). I employ what Lenz Taguchi (2017) entitles cartographic mapping to consider how experimentation with concepts allows lines of articulation to consider how different philosophical problems emerge. In this way I argue that multiple diffractive readings of the literature and the data allow for a ‘cutting together-apart’ (Barad, 2014) as concepts flow within and between each other. The expanded radial cartographic concept map notes the complexity of the diffractive analysis as concepts/data/humans/non-humans are part of co-relational entanglements. Here the green colour details my contribution to the more-than-human distributed subjectivity of the Early Years Teacher. The blue denotes the work of Deleuze and Deleuze and Guattari, the pink is that of Feminist New Materialist and the yellow is scholars who work with Indigenous ontologies which are not directly related to Deleuze and Guattari or Feminist New Materialist work. Furthermore, the red lines are earthworm disturbances which tunnel within/through the concepts, chapters and data.

Production of this thesis

Doxa as a common belief suggests research and (doctoral) study needs human intentionality or nothing meaningful will be produced. This jars with different conceptualizations of PhD study and thesis writing (Honan and Bright, 2015) and the requirement of the ‘academicwritingmachine’ (Henderson *et al.*, 2016). Human intentionality and Posthumanist theorising are problematic due to the decentred human subject and the randomness of life, and I have explored this in earlier papers (Fairchild, 2016a; 2016b) with respect to the development of my research methodology for this thesis. I had also considered alternative ways to write this thesis (Honan and Bright, 2015) but have been subject to my own forms of segmentarity.⁷ The structure and form of these thesis chapters have only materialised recently and are still under the influences of fluxes and flows as I write this and as I work in the middle of my living PhD

⁷ Segmentarity is how life is compartmentalized and coded. These can be rigid which set the form and expression of the segment, or supple which allows for movement (Deleuze and Guattari, 1987) – please see page 54 for more details.

thesis. There will be a juxtaposition of discourse, materiality, rigid, and supple segments as this creative experimentation unfolds.

The nature of study and the writing of the doctoral thesis are bound by a number of expected academic conventions to convey the expected thesis structure. This is traditionally represented by a linear movement from the introduction via the range of chapters to the final conclusions. When writing/thinking with Posthumanism the traditional linear mode of presentation becomes problematic when applying rhizomatic thinking. Sellars (2013) and Koro-Ljungberg (2016) have shown ways of overcoming these tensions by writing chapters as plateaus (Deleuze and Guattari, 1987) which can be read in any order and inter-relate with each other rhizomatically. Plateaus as chapters were adopted by Deleuze and Guattari (1987) who discuss their writing of *A Thousand Plateaus* as rhizomatic but they also acknowledged the inherent tensions in writing in this way. I had considered plateaus as a frame of writing for my thesis but rejected this. Additionally, I had also considered the ordering of these chapters and had initially positioned the methodology chapter (entitled Material-ethno-carto-graphy) before my literature review (entitled Early Years Cartography), the rationale behind this was the manner in which relevant concepts were introduced. However, this was amended/(re)turned on further reading of the thesis. Moreover, I had three possible thesis titles:

Title 1: Earthworm disturbances: the reimagining of relations in Early Childhood Education and Care

and

Title 2: Becoming-professional: Early Years Teachers working intermezzo

and

Title 3: Generative imaginings of Early Years Teachers relations-in-the-world

These titles all relate to the potentials released within the inquiry, and reveal the notion of the earthworm as a means to reconfigure becomings and relations.

Thesis chapters

Chapter one

I draw on the work of Murphie who details a ‘books powers were just as much in new modes of *organizing* writing in the always ongoing development of the codex’ (Murphie, 2016b: 110

emphasis in original) with the codex being the internal organization of the books chapters. The organization of the thesis chapters are a means to consider and reveal data, policy, literature, theory, and analysis which co-mingle and co-produce this piece of work. The archive provides the backbone and the potential conditions of possibility and the anarchive is the earthworm becomings, movements/moments where new imaginings are seen and felt. I argue all these points of departure are an ethical and political act of knowing/feeling/thinking in different ways generated with regards to this living inquiry. This thesis has been structured as a paradoxical archive/anarchival assemblage, a collection of relations which develop around encounters and events (Fox and Alldred, 2015). This living thesis assemblage consists of components such as chapters, policy, theory, methodology, participants, affective flows, data, and analysis. Each component plugs into the other to produce the final piece, but also production may not be reflected in these pages as the assemblage is not static. The chapters, although they may appear linear in nature, can be seen as machinic (connected and connecting) assemblages which produce/interact with each other being a component of the wider thesis assemblage.

Chapter two

Chapter two is titled 'Early Years Teacher Cartography', I introduce key policy and literature which has been used to develop and define the notions the structure of ECEC in England. Initially I use Foucault (1974; 1989; 2004) to explore the plural notions of the circulations of power in a disciplinary society. Furthermore, I build on the work of Foucault and introduce theorisations on Deleuze's (1992) society of control. Within a society of control Deleuze (1992) considers contemporary ways to view institutional power where individuals are afforded the perception of greater freedom, but under more levels of control which becomes self-policing via the effects/affects of modulation. These modulations set the tone for life, and I have employed this concept to consider how policy produces a more stratified and segmented view of the Early Years Teacher and child. Part of this cartography charts, conceptualizes, and critically analyses the prevalence of human capital theory and its influence on the Labour Government, and subsequent government's, professionalization agenda and how the feminised ECEC practitioner was positioned within this as low-skilled, low-paid, and deficient in key skills. These modulations inscribed the identity and psyche of Early Years Teachers where definitions of expected behaviours, practice and definitions frame the work with young children. I consider of the debate surrounding shifting identity, positioning and contexts which can counters any notions of fixity of professional identity. Furthermore, this chapter notes my attention to the

way that expected meta-narratives of policy and professional practice produce certain accepted ways of both being professional and being a child in contemporary modes of ECEC.

Chapter three

In chapter three, entitled ‘Material-ethno-carto-graphy’, and presents the development of a methodology concomitant with the Posthuman aims of my thesis. It develops an exploration of a Posthuman ontology to conceptualize a more distributed identity where humans and non-humans in wider more-than-human relations reveal a wider notion of subjectivity. This chapter discusses a more materially-produced professional and I chart the movements between/through the work of Deleuze and Guattari (1987) and Deleuze and Parnet (1987a; 1987b). Since my MPhil upgrade I had considered how I might be able to research with Posthumanism. Reading the work of scholars (for example Koro-Ljungberg, 2016; St. Pierre, 2016b; Taylor, 2016a) revealed they were counselling for new methodological practices to decentre human intentionality and Posthuman work. Scholars such as Jackson and Mazzei (2012) and Koro-Ljungberg (2016) have encouraged researchers to engage with theory to help them enact movement in research practice. In this way more fluid and flexible approaches to methodological design can engender acts of knowing, inquiring, interacting, interpreting, and transforming the complexity of social life and its entanglement with a more material world.

Working in the field gathering/generating data coupled with a move to engage with and explore more post-qualitative work helped me to push my thinking forward to consider how I might re-view the essential humanist methods of data collection/gathering; these engagements generated the material-ethno-carto-graphy as methodology. The proposition of the material-ethno-carto-graphy is an anarchive relay which debates ways in which human and non-humans in more-than-human relations can be revealed. It pays attention to the notions of vibrant matter (Bennett, 2010) and affect and material flows (Deleuze and Guattari, 1987) which are produced when the subject: object binary is troubled. Furthermore, the notion of data was problematized and the ways data is collected/gathered/generated was considered. By reconfiguring methods-as-affinity-groups the more humanist centred methods could be used to reveal both human and non-human sensitivities. It could be argued that this move does not overcome the issues of Posthuman post-qualitative inquiry as more than traditional research methodologies and I have noted some of these challenges in a previous paper (Fairchild, 2016b). I am not wholly convinced I have overcome some of the challenges raised by Koro-Ljungberg (2016), St. Pierre (2016b) or Taylor (2016a), but I have employed the earthworm as a means to tunnel within/through/between these concepts in a (re)turning of methodology and methods.

Chapters four and five

The next two chapters, four and five, are entitled ‘Data Encounters’. It is within these two chapters that a number of spaces/places/things are explored. I have conceptualized both these chapters as a juxtaposition of the archive and the anarchive. Being mindful that Posthuman post-qualitative inquiry asks us to think differently it is important to acknowledge that as a human researcher from a qualitative background this is not always easy. I take comfort from Haraway (2016), who encourages staying with the trouble where troubling is akin to stirring up, making cloudy and disturbing. Encounters have been troubled in a number of ways, initially with the concepts for analysis which have been drawn from the work of Posthumanist and Feminist New Materialist scholars. I have engaged in what some might consider a more thematic, inductive type of analysis but used this to explore events rather than set up potentially overarching narratives. Theory has been put to work with the data in generative ways and new literature has been introduced in these chapters that may not have appeared in previous sections. The introduction of new literature was part of a methodological Early Years Teacher cartographic rupturing (see page 88) and a diffracted reading where I have read theory diffractively through data to trouble the analysis. Through these chapters I have aerated and disturbed material centring materiality during the analysis and making a conscious choice to foreground the objects before the humans. I argue for a re-generation of the Early Years Teacher and child as subjectivities in more-than-human entanglements. These experiences of enriched relations reveal moments which are not segmented or oriented to the Early Years Teacher and child as human capital future worker. In this way I widen the ethical and political project of this inquiry to consider generative ways to reveal Early Years Teacher relations-in-the-world which is congruent with a flat ontology (DeLanda, 2002) where non-humans deserve the same primacy as humans. These chapters entangle with a range of spaces (nursery classrooms and the object therein, homes, nursery gardens, outdoor spaces) and affect, materiality and nature (technology, nursery objects, and the natural world) where earthworm disturbances map and chart new ways of becoming-with life as these fold and unfold.

Chapter six

Chapter six is titled ‘Rhizome Exit Point Somewhere Else’, I wanted this to repeat the refrain detailed in this ‘Rhizome Entry Point’ introduction, so the beginning/ending of this chapter mirrors aspects of start of the final chapter (c.f. the notion of the ouroboros, the snake which devours its own tail, which represents continuous cycles of death and rebirth, as detailed in

Joyce's *Finnegans Wake*, 1964). This chapter draws together the generative aspects of the thesis and Early Years Teacher more-than-human entanglements. This allows me to reconfigure the Early Years Teacher as more than the doubly dehumanised human of ECEC policy, transforming them into subjectivities in flux and flow of more-than-human relations with wider ethical and political conditions of possibility.

Continuation

I am mindful of the challenges of applying Posthuman theorising to ECEC experiences. However, this thesis employs Posthumanist and Feminist New Materialist theorising to respond to the hegemonic, colonial and patriarchal positioning of what is deemed an appropriate subjectivity. The movement between/from the dehumanised to human re-humanised and further consideration of the more-than-human shows a move from a reinscribed psyche to wider ethical relations. I hope to reveal differential actualizations of the Early Years Teacher which entangle with the social, material and political world in/on/through the earthworm rhizome as it troubles, connects, aerates and disturbs straightforward stories.

CHAPTER TWO:

EARLY YEARS TEACHER CARTOGRAPHY

Not only does the State exercise power over the segments it sustains or permits to survive, but it possesses, and imposes, its own segmentarity

Giles Deleuze and Felix Guattari (1987: 245).

Introduction

This chapter sets out to chart the terrain of ECEC professionalism and policy development in England. In this way, I reveal how co-relations within and between assemblages are given form in dialogue with contemporary thoughts over the required professional identity of the Early Years Teacher⁸ and the current socio-economic and political debates on what is needed from ECEC. Within this chapter I work with the proposition ‘what has been framed in successive policy and professional practice discourses for the Early Years Teacher’ and in doing this I demonstrate the way the Early Years Teacher has been framed and positioned and how past and current policy has produced this. This allows me to consider how policy, research, and literature on professional practice opens up certain debates and potentially forecloses others. I draw on the notion of rigid and supple segmentarity to explore these positions. Segmentarity is the means by which the physical and social world is ordered and compartmentalised (Deleuze and Guattari, 1987). I employ this concept to note how certain debates on Early Years Teacher subjectivities appear more favourable than others. The rigid and supple nature of these segments denoted the way bodies are influenced (Deleuze and Guattari, 1987). Moreover, it is my desire to widen the debates on professional identity and to use Posthumanist theorising to explore Early Years Teacher material relations (in)(with) the world. I will question how policy, research and literature has produced reified notions of Early Years Teacher and children. Furthermore, I also turn to and extend the work of Snaza (2015) who considers how education (and ECEC) is built on the premise that one cannot be fully human until completing a phase of education. These notions of the dehumanised doubled human will be explored at relevant junctures.

⁸ In this thesis, the term Early Years Teacher relates to a graduate pedagogical leader. In England, the qualification requirement is either Early Years Professional Status (EYPS) or Early Years Teacher Status (EYTS).

Cartography mapping

A cartography is a means to map regions of intensive processes and the properties of a system (Bonta and Protevi, 2004). By mapping connections it becomes possible to explore the lines which cut and shape bodies. Cartography is an engagement with a theoretical and political reading of power relations, which can create new alternatives to chart the impact of material and discursive conditions on embodied subjects (Braidotti, 2011b). The body, in this conceptualization, is a more than physical corporeal body and could be drawn from several registers, for example, policy, social, material, and physical (Baugh, 2010).

Cartography of an Early Years Teacher

This cartography of an Early Years Teacher presents the development of the contemporary professional seen in English ECEC. Wider policy narratives detail how an increase in Government funding and curricula developments (DCSF, 2008; DfE 2014a) have seen the requirement for increasing levels of accountability, regulation, and professional qualifications. This, coupled with research evidence and the market model of ECEC, has seen an expansion in the qualifications available to ECEC practitioners up to and including undergraduate degrees and postgraduate accreditations. However, problematically, ECEC is still perceived as low skilled and low paid, and this discourse has persisted due to the work being framed as ‘care’ akin to mothering (Canella, 1997; Cameron *et al.*, 2002; Osgood, 2006a; 2012).

Policy Cartography

My initial discussions concern the influence of a neo-liberal political system which promotes a market led model and the propensity of human capital theory as a means to ensure a productive, effective workforce to support Government’s globalised ambitions. Next I explore the multiple and complex nature of policy development and the ways in which policy, in this case ECEC policy, is formed and impacts on circulations of power. In addition, I draw on Deleuze’s (1992) notion of societies of control to engage with and problematize these wider co-relational entanglements. I consider that although policy is not prescriptive the self-policing modulations that control individuals (dividuals) further reinforce certain professional debates over others. Here the dividual is not a discrete personal identity but a self that can be divided and subdivided indefinitely and is in constant relations with other bodies (Deleuze, 1992). These notions of the dividual question the limits of agency and entitlement previously afforded to the individual. Within England, both policy and expected notions of professional practice have framed a

workforce in need of professionalization to support the need of the child to become educated and school ready (Moss, 2013a). With a focus on social mobility (Waldfoegel, 2012) and a more stretching curriculum coupled with early intervention (Allen, 2010; Field, 2010), I argue the child, as future worker, has been placed firmly at the centre of economic regeneration and the Early Years Teacher is the means to achieve this.

Alternative modes of analysis

However, alternative professional models and modes of analysis have been explored with these positions driven by the prevailing socio-political positioning of the relevant Government in power. For example, the Nordic pedagogue is situated in a broadly social-democratic political model. The dominant and seemingly neo-liberal technical ideals of practice have been challenged by scholars, for example, Dahlberg and Moss (2005) and Dahlberg *et al.* (2007) consider how professionals can disrupt dominant visions of professional practice. Furthermore, scholars who are part of the group Reconceptualizing Early Childhood Education (RECE) (Bloch *et al.*, 2014) have debated new models of resistance to technicist practice, for example, Smith and Campbell (2014) discuss practitioners' strategies to resist observations and supervisions of practice. Additionally, Rau and Ritchie (2014) have considered ways to engage with Indigenous Maori perspectives to decolonise Western views of professional practice. However, I argue these modes of living are the result of more supplier versions of segmentarity but are still influenced by wider policy driven modulations.

Posthuman modes of analysis

Posthumanism and New Materialist theorising has allowed for a new entanglement with the world where scholars move beyond and think at the limits of discourse, deconstruction, and critique. Posthuman work in ECEC has emerged, for example, regarding gender (Osgood, 2014; Osgood and Scarlet/Giugni, 2015a; 2015b), quality (for example, Jones *et al.*, 2016), professionalism (Lenz Taguchi, 2010), curriculum (Giugni, 2011; Sellars, 2013), and children (Olsson, 2009; Holmes, 2014b; Otterstad and Waterhouse, 2015). These new possibilities offer ways to engage both ethically and politically in an affirmative critique of policy, childhood, and professional practice. Building on the work of Lenz Taguchi (2010), Cumming (2014; 2015), and Evans (2015) I propose to engage with a range of Posthumanist theories, most notably an entanglement with Deleuze and Guattari (for example 1987) and Feminist New Materialists (such as Haraway, 1991 and Alaimo, 2008) to debate subjectivity. I suggest becoming-

professional as a supplier form of segmentarity to generate new ways of thinking about professional identity as a co-mingling of relations between humans and non-humans in more-than-human entanglements. Additionally, being-teacher has been proposed as a more rigid form of segmentarity which highlights the paradoxes of enactment of policy and the flows within and between more-than-human engagements. This chapter acts as a catalyst to the creative experimentation revealed in this thesis. It details the move from the problematized discursively constructed professional encircled by neo-liberal vista's and human capital theory to a Posthumanist imagining and reconfiguration of becoming-minoritarian becoming-professional entangled and enmeshed in the complexity of the material world.

Mapping the terrain

The neo-liberal turn and human capital theory

When mapping the cartography of the Early Years Teacher I debate what has been co-produced as part of a wider assemblage of policy, socio-economic expectations, and citizens. Neo-liberal theory grew from political and economic practices which considered humans as best able to advance themselves by ensuring liberating entrepreneurial freedoms within an institutional framework in respect of private property rights, free markets, and free trade (Harvey, 2005). This was premised on discursive policy which, when implemented, availed some of the population the means to access wider material gain. Within this juxtaposition between the discursive and the material the State was to promote free markets and to introduce this ideology into non-traditional areas such as education, health etc.

Foucault (2004) suggested that the role of the State was to encourage and create neo-liberal markets as the way to promote economic prosperity. An outcome of this move was an exponential expansion of the corporate world, where competition and deregulation that claimed greater increased productivity and efficiency would reduce costs for consumers. However, it has been argued that the growth of neo-liberalism served to increase the power and economic stability of the ruling elite and the advance of corporate power (Ozga, 2000; Harvey, 2005; Ball, 2012; 2013). Deleuze explored the neo-liberal turn when he considered 'in a society of control, the corporation has replaced the factory' (1992: 4), with more far reaching networked levels of governance and regulation. In societies of control power operates through a process of continuous modulation: a regime of perpetual training and assessment (Deleuze, 1992). Within English ECEC modulations chart the development of ECEC professionalism with attending

qualifications framework and CPD expectations (for example Nutbrown, 2012; 2013; DfE, 2013d).

Stratification and segmentarity

Deleuze and Guattari (1987) proposed the concept of stratification to detail how life becomes compartmentalised and ordered. This stability details the way in which bodies are formed and when stratification occurs in corporeal bodies the ‘thinking, speaking political subject’ (Hickey-Moody and Malins, 2007: 5) is produced. Stratification is not a negative expression, in fact Deleuze and Guattari post ‘Staying stratified – organised, signified – is not the worst thing that can happen’ (1987: 197). However, creative experimentation is a counter production of stratification and the fractures which this produces are seen as ruptures (Deleuze and Parnet, 1987b) which reveal new ways of living. Furthermore, segmentarity is the expression of stratification where binary, circular and linear segments are formed (Deleuze and Guattari, 1987). Binary segments detail the duality of structures that are not inherently binary in nature. For example, Olsson (2009) suggested how the view of childhood and the way it has been constructed separates the worlds of children and adults as binary segments. Similarly, with circular segments concentric rings focus on a centre of power (Deleuze and Guattari, 1987, cite the State as a power centre) and influence all within the segment. An example of a circular segment is the means by which education is governed using policy, assessment and regulation. Finally, the linear segment is relational to itself but also to others, here each segment is unable to enter the state of becoming or becoming-with other segments. For example, the progression in learning from novice to expert following a pre-determined training pathway. The result of these forms of segmentarity is an overcoding and normative form which forecloses production of difference and sets the form, substance and expression of the segment. Deleuze and Guattari (1987) note segments are not fixed allowing bodies to pass or cross over through several segments. These interactions can form flexible systems of control, but can also interfere with each other, creating complex spaces of navigation.

Rigid, molar segments are an example of overcoding which in turn produce structures which govern expression in the social and material world. Whereas, supple, molecular segments allow room for manoeuvre and become sites for creative processes. Bodies which enact rigid and/or supple segments reveal how life is made of flows and intensities of vitality and dynamism as they pass (in)(on)(through) these segments in productive relations. Rigid and supple segments should not be seen as a binary (Goodchild, 1996), they reflect different societal

process which are constantly being made, dropped and remade in moments of becoming within assemblages. Deleuze and Guattari remind us of this noting ‘a little suppleness is enough to make things “better”’ (1987: 251). For example, the supplier segment promotes more flexibility but paradoxically this can lead to self-determined modulations which produce more flexible means of control (Deleuze, 1992). This can be exemplified in the need for Early Years Teachers to be assessed against the Teachers’ Standards (Early Years) (DfE, 2013d) where providers have to devise their own assessment standards, under the threat of an inspection from Ofsted (Ofsted, 2015). These notions of a fluid and dynamic segments will allow me to adopt a more flexible model to analyse neoliberalism, policy and Early Years Teacher relations-in-the-world.

Neo-liberalism

Under neo-liberal theory the concept of consumer free choice was championed and consumer choice fuelled the market which needed to have sufficient choice to meet consumer demands. The tension here was that the State should not interfere with the market in any way. To mitigate this, the trade-off was that regulatory power was transferred to unelected bodies to regulate non-compliance, for example Ofsted in ECEC. Here linear segmentarity denotes the relationship between the market and consumer choice with circular segments noting the influence of bodies such as Ofsted. Deleuze (1992) reflected how resistance to a society of control might manifest itself and concluded the complex and multiple nature of control would become self-policing. For example, rigid segments in ECEC produce the influence of an Ofsted inspection which sees modulations to drive the focus of professional practice to meet the required assessment framework. The result of this has seen books supporting the justification of certain ways of professional practice to regulators (for example Grenier, 2017) which I argue help to frame expected ways to work with children.

Furthermore, changes in the scope of employment with a move away from manufacturing to a requirement for a skilled workforce emerged which then prompted Government policy intervention. Successive Acts have attempted to promote a form of segmentarity via education and ECEC for all, more recently to support social mobility and economic output (Ozga, 2000). The competitive labour market and the reduction of individual rights led to the potential exploitation and marginalisation of certain members of society, for example, Skeggs (1997) and Colley (2006) argued that working class women who engage in caring professions, such as social care or ECEC, were readily exploited. Osgood (2006a; 2012) concurred and argued that the notion of the neo-liberal market privileged patriarchy present in wider society. In her view,

neo-liberalism stifled alternative imaginings which consider a more feminised view of the social world.

ECEC Markets

The expansion of ECEC provision represented a mixed market economy with the State, private-for-profit provision and private-not-for profit involvement (Lloyd, 2013). The marketisation of the English ECEC sector has grown considerably since the 1990's and private settings now form the majority of the offer to parents (Lloyd, 2012). As at 2016 there were 1.2 million children in group based care in England (DfE, 2017) which notes a diverse private sector imbued by different philosophies, motivations and politics. It could be questioned how human capital theory enables all children and families to become socially mobile. Although the discourse of social mobility is considered a goal of ECEC (Field, 2010; Allen, 2011) the stratified nature and binary segmentarity of the social class system in England does little to encourage all to succeed (Bourdieu and Passeron, 1990). Indeed Canella (1997) and Robertson and Días (2006) argued that this discourse allows a degree of 'othering' which prejudices those children and families who have not been 'normalised'.

Campbell-Barr (2014) reflects on competing discourses and the binary segments of the entrepreneurial nature of ECEC and its social, emotional and educational benefits where fees paid equate to notions of quality ECEC. She argued that markets were selected as a model for ECEC provision as they were viewed as more responsive to consumers (parents) needs (OECD, 2006). Here the fluid linear segments see parental choice in relations with marketized ECEC. It has been argued that the investment narrative is flawed (Moss, 2013b) as the human capital argument of linear segments producing the child as future worker has not delivered on its promises (Heckman, 2000). Moss (2013b) detailed that human capital arguments postulating that ECEC brings high returns on investment and a reduction in social problems have been developed using US studies. These studies produced binary segments which sees the child becoming more human and form the basis of the investment narrative but have yet to provide evidence of the promised transformation in the US. The reductionist molar view of surveillance and governance, and the 'return on investment' argument masks the complex nature of the debates around ECEC provision.

The neo-liberal market view acceded that competition would provide improvements in quality driven by parent choice. There has been concern expressed about the variable quality within education and how the market model has led to a new model of selective admissions

(Ozga, 2000) where savvy consumers are able to promote social class divisions via binary segmentarity. ECEC has not been excluded from selective admission, where Ofsted (2012) have reported a consistently low level of process quality in ECEC settings from deprived areas, where parents' self-exclusion (Bourdieu and Passeron, 1990) from the market negates the argument for quality improvements. In this instance process quality refers to the direct experiences of children in settings, such as adult child interactions (Sylva *et al.*, 2004) where assessment of children's' development are a form of circular segments. Lloyd (2012) concluded that sustainability and quality are problematic in a mixed economy model noting a division between state subsidised provision for deprived children and that of children from wealthier employed parents. There have been moral and ethical issues raised as to the suitability of the Early Years being subject to market forces and whether the growth in private provision results in a drop in quality as profits are maximised (Goodfellow, 2005; Kilderry, 2006). The growth of large scale chain nurseries has yet to significantly influence the English childcare market with respect to profit and market value being placed above ethics of care (Campbell-Barr, 2014). However, greater economic pressures on viability could lead to 'economies of scale' which impact the smaller ECEC settings.

Education and ECEC 'in crisis'

In recent years, there have been growing media-linked discourses portraying education as facing a crisis with an assertion that a decline in standards of education and ECEC do not prepare children to become productive future employees (Coughlan, 2013). These supplier segments allow Government to employ modulations in the form of policy to reinscribe more rigid forms of segmentarity. Furthermore, successive Governments have used human capital theory (Becker, 1975) to promote individual responsibility for education. However, the rise of neo-liberalism saw the depersonalisation of human beings into 'the consumer'. Mirowski (2014) considered the neo-liberal subject as an agent, a product to be sold. This led him to argue that ongoing training makes the subject 'a walking advertisement, a manager of her own résumé' (Mirowski, 2014: 108) (c.f. Foucault's entrepreneur of the self, Foucault, 2004). In this conceptualization bodies become bundles of capacities, units which are part of the neo-liberal machine. It could be suggested that in societies of control (Deleuze, 1992) the neo-liberal subject is female, which is alluded to by Mirowski (2014) and Tiqqun (2012), where a flexible, casualised, feminised workforce always under threat of precarity is preferred with this neo-liberal subject exhibiting these same qualities in their personal lives.

Posthumanism and neo-liberal capitalism

It has been suggested that Posthumanism is consonant with neo-liberal capitalism (Žižek, 2004; Hallward, 2006). Noys (2010) explores the work of Deleuze and Deleuze and Guattari and considers how philosophy developed on the Continent after the civil unrest in France in May 1968. He charts how *Anti-Oedipus* (Deleuze and Guattari, 1983) used the model of the schizophrenic to link to capitalism and that by *A Thousand Plateaus* Deleuze and Guattari, (1987) adopted a more stable position on points of resistance to capitalism whilst still maintained clear theoretical linkages (Noys, 2010). In fact Noys argues that ‘the constant focus on the *production* of the subject or subjectivation...reproduces the nature of the capitalist value-form’ (2010: 73 emphasis in original). These comments are also echoed by Povinelli (2016) who explores biopolitics and power, here she entitles the phenomena geontopower to consider how capital affects humans and non-humans. She argues that ‘capital views all modes of existence as if they were vital’ (Povinelli, 2016: 20) noting that it also demands a different value from humans and non-humans. I agree that the consonance with Posthumanism and capitalism is apparent and I harness this during my analysis of the notions of becoming-professional and being-teacher. Furthermore, I argue that putting Posthumanism to work allows me to understand and explore segmentarity in action. In fact, Deleuze’s society of control (1992) notes the fluxes and flows between alternative positions of rigid and supple segmentarities. I argue even though Early Years Teachers can be influenced by suppleness there is still a requirement for segmentarity and modulations as the power of the corporation drives aspects of Early Years Teacher subjectivities. However, what I do intend to show is how more material relations can reveal new visions for Early Years Teachers more-than-human subjectivities.

Afterword

Within this section I have revealed how perceptions of a crisis in education and ECEC alongside the changing nature of the workforce engendered a focus in policy to promote social mobility through a more rigorous academic curriculum. This cements a view of the dehumanised human (Snaza, 2015) that not only needed education, but a more rigorous segmented level of education. Here the dominant norms of a society in work became normalised at all levels. The capitalist machine required a flexible and mobile workforce, and education became the way the population could be modulated to allow bodies to produce ‘their own economically productive lives’ (Massumi, 2015: 109). I argue that in this world of continuous modulation and re-

humanisation social justice and social mobility became unreachable goals as the unproductive were left behind by the requirements of the capitalist assemblage.

Explorations of a policy lifecycle

In this section I argue that policy produced two movements, one of these is discursive and the other is material. The discursive nature of policy has been defined with a capital 'P' with the material nature of policy as a lower case 'p' (Ball, 2013); 'Policy' is the documentation, such as the Acts and the frameworks whereas 'policy' is the ongoing process of the implementation and enactment of legislative frameworks at the level of the organisation or individual. One view of policy development links to Foucault's notion of 'order' (O'Farrell, 2005) where the 'episteme' becomes policy formation defining the emergence of knowledge and 'regimes of truth' supporting order (Foucault 1974). Foucault argued that power is the relationship between individuals or groups existing only when exercised (Foucault, 1989) and that within Government power struggles are present within every level. Policy, when viewed as discourse, allows the Government to constitute knowledge and social power as a dominant discourse. However, discourse allows for multiple readings with as the plurality of the subject position allowing policy to be contested. Popkewitz and Brennan (1997) argue that dominant discourses set the meta-narratives around schooling, stating government policy intervention can be justified 'through strongly mediated "public" dissatisfaction with educational institutions' (Popkewitz and Brennan, 1997: 208).

Policy as segmentarity

Policy can be viewed as a mechanism of segmentarity where binary, circular and linear segments are produced (Deleuze and Guattari, 1987). In particular the conception of policy with a capital 'P' can be seen as an attempt to compartmentalise and segment society via directives contained within the policy. Here the function of 'Policy' is to co-produce an idealised subject which then becomes revealed as part of further policy revisions and implementation which describes the notion of policy with a lower case 'p'. Deleuze (1992) argued that power circulations have become subtly different as the locus of control moves from the State to the Corporation (the capitalist machine). This reflects changing social and economic times as the neo-liberal machines gain ascendancy. In this instance I argue that although ECEC policy sits firmly within the remit of Government departments it is the influence of the neo-liberal model

which allows for rigid segments to be produced and promoted as dominant norms. For example, a greater emphasis on testing and measurement of children on the premise of the wider skills children need to enter the workforce which Teachers are supposed to provide. The stronger the rigid segment the greater potential for the influence of modulations to overcode and reinforce social control and dominant modes of practice.

However, there are options for suppleness within and between segments and this can produce trade-offs which involves negotiation, contestation, struggle and compromises between interested parties and key stakeholders (Ozga, 2000). In many cases this messy and contradictory process can result in multiple drafting's and readings before statute becomes policy. The plurality of groups and individual interpretations of regimes of truth give rise to hegemony (Wheeldon, 1997), where the norms are constantly reapplied and reaffirmed by common sense values which are reinforced or dropped on the agency of those either reproducing or challenging dominant modes of production. More recently there is a greater immediacy as the emergence of social media enables what Giroux (2005) entitled public pedagogy; an instant debate where knowledge and desire are mediated by emerging technologies. In this way, the (re)interpretation of the policy-modulation can be viewed as an endless cycle of negotiation and renegotiation of knowledge and power between policy makers and the wider world.

Troubling policy

If the notion of policy is troubled and viewed as a relational assemblage where policy is always already material (Van der Tuin, 2011) then the impact of what policy produces can be considered and I will further develop this throughout this chapter. Alternative reading of the circulations of power can be drawn from Deleuze (1992) and the notion of modulations with societies of control. The multi-modal delivery of information in contemporary society can represent a form of haptic control (Deleuze and Guattari, 1987; Massumi, 2002). The influence of social media and online representations can transcend the linguistic turn as multi-sensory images and sound provide structures to exert control by representing dominant expected norms. I contend control in the modern world leaves little room for those who resist the norms (Deleuze, 1992), the population has a perceived sense of freedom by the representation of dominant modes of being which foreclose alternatives.

ECEC policy productions in the UK

I have detailed how neo-liberalism and policy can be mechanisms of segmentarity and control as part of a co-relationship between neo-liberalism, human capital theory, and policy implementation. In this section I will consider the development of a graduate professional in ECEC detailing how changes in policy produced different expectations of ECEC professionals and children. Furthermore, I will consider how policy is a mechanism to organise and actualize human capital theory in ECEC. Segmentarity and modulations will be used to conceptualize these actualizations and the tensions between more technicist and more resistant notions of professional practice will be explored.

Early productions (pre 1997)

Although there have been many pioneers in the field of early childhood education, such as Friedrich, Froebel, Robert Owens, Susan Isaac, the Macmillan sisters and Maria Montessori (Daly *et al.*, 2006), it was not until the 1960's that there was a growth in ECEC settings in the UK. The expansion of ECEC reflected the changing nature of employment as increasing numbers of women required childcare when returned to the workforce (Osgood, 2012). In the 1990's this development followed two distinct binary segments, the growth of the voluntary sector and the playgroup (covering birth to three) and the growth of full day care (covering three to five) via nursery schools and private child-minders (Pugh, 2010). These segmented age ranges mirrored a binary segment between the outcomes available for children with the discourse of care pervading birth to three early years' provision and the discourse of school readiness and preparedness encompassing the three to five sector (Moss, 2013a). Furthermore, this historical position still reflects the current diversity of the contemporary sector. Additionally, this caused a binary segmentation of vocational and academic routes towards qualifications and professional identity (Bennett, 2013). These apparently divisive and hierarchical notions of ECEC provide the undercurrent for the contemporary debate between early years' specialists and government policy (Nutbrown, 2012; 2013; DfE, 2013a). The binary segmented conceptualization of different needs for children (care and education) had an affect on the qualifications on offer. These binarized choices were reflected in the then segments of curricular imperatives and notions of the youngest children needed care and those who were older were in more need of education prior to attending compulsory schooling.

Labour policies (1997 – 2010)

Following the election of a Labour Government in 1997 there was a massive expansion in the choice of ECEC settings. Availability and affordability of quality ECEC were a preoccupation of Labour and child poverty associated with family unemployment was the primary policy target (Baldock *et al.*, 2013). These drives produced a significant financial investment in ECEC of the like not seen before and Labour (1997 – 2010) were presented with an opportunity to redesign ECEC modelling the best international examples. They chose not to take this opportunity, but built on the previous segmented system which delineated age ranges of birth to three and three to five with differing practitioner qualifications and professional identities. Here segments are binary and circular as the split age ranges and qualification routes are interacting with the centralised policy implementation. It could be argued the reason for not following international models was the desire not to over professionalise the workforce as the role was seen akin to mothering (Canella, 1997; Cameron *et al.*, 2002). These discourses shaped the direction of ECEC policy under Labour (Cameron *et al.*, 2002) and represent a missed opportunity to raise the pay and status of those working in ECEC. Although Osgood (2006a; 2009; 2012) has shown ECEC practitioners attempted to negotiate the landscape they faced a considerable challenge against the perceptions of ECEC as low skilled; with the ‘hair or care’ label attached implying the lowly status of the work and a default jobs for female school leavers with limited academic qualifications (Vincent and Braun, 2010; 2011). Binary segments drove the perception of the ECEC employee as the view of working with young children deemed a requirement for lower qualified staff. Furthermore, Canella (1997) has argued that the professionalization of education has resulted in a patriarchal power over both women and children due to the regulatory discourses that surround teachers.

The resultant policies produced a binary segment based on gender roles and the conception of the value of certain forms of employment. These changes reinforced the view of ECEC as in deficit and less-than-human with women and children requiring a range of modulations to overcome the deficit notion. The intersection of policy with a market led model of ECEC (Lloyd, 2012; 2013) drove the notion of a segmented identity of being-teacher. Here a range of segments defined professional roles and reinforced the prevailing political will: rigid segments were reflected in the design of policy and supplier segments saw the enactment of the marketized ECEC professional. I argue both women and children were dehumanised and posited in deficit, this hegemonic position was reinscribed by policy and wider expectations for both the segmented women and child as the binary dehumanised/re-humanised was applied. Labour’s policy changes had a dual approach to attempt to raise the perceived status of working with young children by introducing linear segments and a raft of perpetual training and to

deliver a chance of social mobility foregrounding the type of child ECEC should produce. However, it could be suggested this was a deliberate attempt to only address part of the issue as the prevalence of private sector providers left the wages and terms and conditions of the ECEC workforce unchanged. Furthermore, by labelling the workforce as deficit and low skilled conditions for further training were highlighted as a modulation to produce labour for the neo-liberal capital machinic requirements for both female ECEC practitioners and children.

The need for further upskilling of staff was materialised in the Childcare Act 2006 (HMSO, 2006) which provided a vehicle for professionalization of the ECEC workforce. Increased professionalization came hand in hand with regulation and surveillance and standardised education programmes provided the evidence base which has shaped future policy discourses (Sylva *et al.*, 2004; OECD 2006; Mathers *et al.*, 2007; Mathers *et al.*, 2011; Taggart *et al.*, 2015) and reiterated the self-policing nature of the modulations. Again the suppleness in the segments sees a neo-liberal de-valorisation of the ECEC professional segmented by perpetual training juxtaposed against a potential of raised status and greater autonomy. Against this backdrop the Labour Government had pledged to end child poverty by 2020 and detailed its commitment in the 'Ten Year Childcare Strategy: Choice for Parents – The Best Start for Children' (DfES, 2004a). These pledges were couched against a global drive to end child poverty as demonstrated by the Millennium Development Goals (United Nations, 2000) which was connected to human capital ideals of development of self to overcome disadvantage. The recommendations of a graduate-led workforce (Calder, 2008) saw the introduction of NVQ's, Foundation Degrees, BA, and postgraduate routes. However, the drive to professionalise the workforce was not capitalised on as the requirement for a graduate led workforce was aspirational and as such was not replicated in legislation. Here linear segments interact with circular segments as the linearity in training routes provide potential to progress in skills and qualification. However, this was confounded by the circular directives from policy where the statutory requirement for an ECEC manager being an NVQ3 (DCSF, 2008; DfE, 2014a), and also a requirement as a licence to practice, the promise of increased status and recognition was limited. This move indicates the fluidity of capitalism where aspiration for becoming-professional and being-teacher are suppressed by policy and staff costs for enhanced training. I argue that the lack of legislative will to see graduates leading practice was influenced by previous historical actualizations of ECEC and hegemonic gendered debate which positioned women and children as more malleable neo-liberal workers/potential workers (Tiqqun, 2012; Mirowski, 2014).

Coalition policies (2010 – 2015)

The tensions and debates surrounding the suitability of the ECEC workforce were explored more recently by Professor Nutbrown (Nutbrown, 2012; 2013). Her review was at the request of the prevailing Coalition Government (2010 – 2015) who were influenced by the perception of ECEC as educative. The notion of the school-ready and work-ready child, as a way to reframe the dehumanised teacher, saw the development of two roles, that of Early Years Teacher and Early Years Educator (DfE, 2013a) with more rigorous entry requirements and assessment based on ‘teaching’ practice which represented a move away from play based learning. This move to align ECEC with education and the promotion of the birth to nineteen educational continua suggest a linear segment to frame developmental norms which mirrored the aims for children’s education to take a central role in economic regeneration. However, the moves to promote a teacher-led workforce (DfE, 2013a; 2013b) did little to increase recognition and pay as the hoped-for link with Qualified Teacher Status (QTS) had not materialised leaving the Early Years Teacher being seen as different but equal (Hevey, 2013). I argue the spaces created by policy enactment can be considered rigid linear segments which promote an expectation of progressive training encouraging ECEC practitioners to be more professional. Furthermore, there are rigid binary segments as practitioners were perceived as either in training or untrained. Additionally rigid circular segments were present where power centres surrounded Government requirement for professionalism.

Conservative policies (2015 onwards)

With the election of a Conservative Government in 2015 there were subtle shifts in the discursive and material production of policy. Building on the notion of ECEC practitioners and children as deficient and needing re-humanising the early years curriculum, the EYFS, was revised and learning goals were strengthened. The new framework can be seen as rigid segments binary as they applied to children in registered ECEC settings only; linear as they note more strenuous requirements for child development, and circular as they link to wider policy directive on economic regeneration and social mobility. Regulatory guidance from Ofsted (Wilshaw, 2014) stated inspectors should look for clear and effective teaching and assessment strategies and that inspector’s reports needed to be ‘clear about the extent to which a provider prepares children for school.’ (Wilshaw, 2014: 2). At that point, social policy focussed on deficit reduction and reductions in public spending with maternal employment being seen as a means to support economic growth. The language surrounding ECEC changed with the

reintroduction of the term ‘childcare’ signalled the tensions between increasing maternal employment, reducing dependency on welfare benefits, and teacher-led early education (Gibb, 2017). There was a drive to align ECEC provision to schools which again reflected the influence of human capital theory and societies of control which framed past policy perceptions of ECEC as inadequate. These measures reinforced a new model on ECEC and questioned the role of the Early Years Teacher as the market requirement for ‘childcare’ was in tension with the school binary segmented model of Qualified Teacher and Teaching Assistant. I argue this constant change in policy reinforced the need for continuous modulations and the ECEC professional could never attain human-ness as the rigid segments which guided professionalization were constantly shifting. However, public perception over what was produced as these policies materialised saw the child as future worker aligning closely to human capital theory where more rigorous ECEC curricula and Early Years Teachers enhanced the child’s future potentiality.

Current visions for Early Years Teachers

I have demonstrated how both the discursive and material nature of ECEC policy has sought to define the segmented ECEC professional and child. In *Dialogues* Deleuze and Parnet note that:

A professional is a rigid segment, but also what happens beneath it, the connections, the attraction and repulsion, which do not coincide with the segments, the forms of madness which are secret but which nevertheless relate to the public authorities: for example, being a teacher, or a judge, a barrister, an accountant, a cleaning lady? (Deleuze and Parnet, 1987a: 125).

In this section I will explore how policy has been actualized and how this has produced certain images of the Early Years Teacher and child. As previously shown the Early Years has long suffered the view that the skills and knowledge of practitioners represented a deficit model (for example Cameron *et al.*, 2002; Vincent and Braun, 2011; Osgood, 2012; Payler and Locke, 2013). This deficit extended to lower or limited, qualifications which in turn was reflected by the fact that Early Years practitioners were historically generally women from working class backgrounds who were perceived as deficient in social and cultural capital performing caring work. Osgood (2010) has argued this was due to the hyper-feminised view of working with young children which promoted a poor external view of the profession from both Government and the public. These dominant hyper-feminised discourses become regimes of truth and the deficit model silenced professional voices giving ECEC practitioners limited influence on a national stage. This was also confounded by the notion of the pliant feminised neo-liberal

worker (Tiqqun, 2012; Mirowski 2014) who was dehumanised (Snaza, 2015), and so in need of greater professionalization. Previously Labour's (1997-2010) professionalization agenda did little to counter this view as its inception reinforced the notion that ECEC practitioners under the influence of modulations needed intervention and further upskilling and training. The result policy revealed how segmentarity produced a need for a certain type of professional who met the expected norms of a feminised caring workforce with little political influence. The ECEC practitioner as dividual was reproduced in these enactment and controls/modulations were exercised by the options available for further training with certain types of courses being specified as part of policy direction which favoured an outcome based pedagogy for children.

Diversity in the ECEC sector and professional practice

The diverse and varied nature of the ECEC sector with settings such as private nurseries, charity and voluntary settings, pack away preschools, children centre, nursery schools and nursery classes within a school helped to maintain the segmented nature of ECEC practice (Osgood, 2006b). However, ECEC practitioners and scholars have found ways to open up new ways of being/becoming an Early Years Teacher as they engendered supplier segments during explorations of the sectors' growing professional identity. Although it has been difficult to define a single professional identity for the diverse nature of the sector it has been suggested that professional identity is socially constructed and may be constrained by the ideology and values of the setting (Grieshaber and Canella, 2001; Beauchamp and Thomas, 2009). Urban (2010a, 2010b) argued that creating spaces for dialogue can allow practitioners to challenge any hegemonic notions of curriculum, professionalism and practice and bridge the gap between 'ways of being' and 'ways of knowing'. Furthermore, Anderson (2014b) concurs and feels that professional identity is formed through an ongoing process of interpreting daily experience via critical reflection which can be emancipatory. In fact, the notion of a critically reflective practitioner formed the cornerstone of the Early Years Professional accreditation which was instigated in 2006 (CWDC, 2008). The multiple view of the early years' professional self allowed for the nuanced production of the ECEC practitioner, for example, the professional could be a combination of a carer, a teacher, an educationalist, or a social worker. These supplier aspects of segmentarity saw ECEC practitioners start to question their dividual status as they challenged how policy sought to reify them (for example the protest by ECEC settings about the implementation of 30 hours 'free' funding entitlement).

Graduate leader development

As the corporation became responsible for social control (Deleuze, 1992) the individual had a precarious role as the corporation introduced the requirement for self-modulation. In ECEC these modulations influence the perceptions of the type of practitioner who can be viewed as suitably professional. Crook (2008) details contemporary engagement with professionalism has seen plural definitions as to who is professional and what professionalism looks like and that this shift imbued an inherent tension as to the level of autonomy and leadership the modern professional could demonstrate. The individual therefore is left wondering if their form of professionalism is sufficient and what form this might take in these fluid times. A more technicist approach to professionalism would argue gaining qualifications is a key requirement (O'Keefe and Tait, 2004, cited in Chalke, 2013) and for some, such as Nursing and Social Work, the award of a status denotes professional recognition. This view is exemplified by Manning Morton (2006), who feels that a professional valued knowledge gained from further study over skills where individuals undertook a continuous cycle of self-evaluation and self-improvement. Segmentarity and stratification are manifested by overcoding and reinscription of a reflective sense of self. These modes of existence fit the market requirement for a supplier form of professional who is able to self-correct perceived issues or gaps in practice and knowledge. It could be construed that meeting professional standards (CWDC 2008) is the marker of a professional and this is the preferred method for the attainment of QTS (DfE, 2013c) Early Years Professional Status (EYPS) (CWDC, 2008) and Early Years Teacher Status (EYTS) (DfE, 2013d). Although Osgood (2006a) and Moss (2010) argued that by focusing on standards alone the professional could potentially become what they defined as a technicist, where quality improvement of self is taken as a narrow definition of a professional's role.

Conceptualising professionalism

In addition to qualifications and skills it is important to consider how the discursive and socially constructed nature of a professionalism can be actualized and materialised. Sachs (2001) argued that professionals can be externally ascribed certain attributes to differentiate them from other groups. Furthermore, she argued that teachers had been subject to a top-down managerial view of State mandated professionalism (Sachs, 2001) where there was space to resist, but their resistance can be a challenge (i.e. rigid and supple segments in flux and flow). Additionally, a professional could also be expected to behave in certain ways and to act ethically and with integrity, autonomy and responsibility (Lunt, 2008; Miller and Cable, 2011) with a sense of professional agency (McGillivray, 2011). It has been suggested that membership of a professional organisation adds credence to the definition of a professional (Crook, 2008) and

can help with the negotiation of pay, terms and conditions. These notions of professionalism can be a challenge for practitioners to demonstrate and there is an inherent tension in ECEC due to the strong ethic of care which manifests in many aspects of professional identity (Taggart, 2011). It has been argued that the passion and an ethic of care (Moyles, 2001) are at odds with the more managerialist notions of professionalism ascribed to in conjunction with prevailing neo-liberal values and Osgood (2004) has explored how ECEC professionals rationalise these tensions. Furthermore, Stronach *et al.* (2002) concur when they argued that the professional construct is confounded by methodological reduction, rhetorical inflation, and universalist notions. In this environment, the tension between an audit culture and collective values can result in a segmented universal definition of professionalism which is led by policy makers rather than professionals and (re)produces the segmented individual.

Professional identity formation

Whalley (2011) argued there was space within the legislation of the Childcare Act 2006 (HSMO, 2006) for Early Years Teachers to develop their own professional identity based on specific training and practice skills. Supplier segments produced a complex and multi-layered view of professional identity, however, more rigid binary segments soon became reproduced in research and practice; these being the technicist versus the activist. A supplier activist professional was described by Miller (2008a, 2008b), Oberhuemer (2005), and Sumsion (2006), where practitioners could negotiate and circumvent policy and demonstrate agency to meet statutory requirements while staying true to themselves when supporting children and families. Simpson (2010) concurred, although he argued that agency and autonomy were difficult to exercise and those who were unable to negotiate the new rigid segmented managerialist model effectively became despondent, either leaving the profession or becoming 'normalised' within the prevailing practice of their setting. However, Urban (2010a; 2010b) counsels us to be mindful of top down definitions of being professional which can lead to normative views. He argues that views which encouraged a hierarchy where knowledge is produced, transferred and applied represents a structuralist framework where there is a clear divide between theory and practice. This reflects a binary segment where there is a constant renegotiation as to whether practice or knowledge is most highly favoured. These debates have done little to support ECEC practitioners as polarisations of theory and practice produces an ECEC professional never fully actualized.

Personal agency and professionalism

It could be argued that personal agency provided the capacity to engender supplier segments as ECEC practitioners negotiated the policy and professional practice landscapes. Murray (2013) expressed the tension between self-image, personal agency and structural norms and argued these need to be balanced to provide professional legitimacy against the current deficit discourse. The notion of personal agency is also highlighted by McGillivray (2011), who considered social structures such as education, personal history, emotions, society, discourse, ideologies, dispositions, and lived experiences and how these impacted on agency. The multiple and heterogeneous nature of the ECEC workforce and the way practitioners have been positioned as a deficit (for example Vincent and Ball, 2001; Osgood, 2012) can be a limiting factor for agentic potential and some practitioners may feel marginalised by parents who they feel have greater social and cultural capital. Personal agency defined how professionals react to dominant norms; this is exemplified by Fenech and Sumsion (2007) who argued that due to the multiple identities of individuals not everyone reacts in the same way to dominant norms presented by policy. These views show the challenges of segmentarity as rigid and supple segments are always in flux, where the production of the ECEC professional changes over time and that in some instances professionals can influence the production of supplier segments. However, it also reinforces the market need for a self-modulating professional who is in tune with the shifting requirements of policy makers.

Evidence base for ECEC professionalism

It must be noted that evidence based research also produces particular notions of the professional requirements of ECEC professional. The drive for a graduate led workforce was based on research such as the Effective Provision of Pre-School Education (EPPE) (Sylva *et al.*, 2004; Taggart *et al.*, 2015) and Millennium Cohort Study (Mathers *et al.*, 2007). These studies detailed positive results for children's educational outcomes where practice was led by graduates, in these cases Qualified Teachers. Binary segments reified the graduate Qualified Teacher with the necessary skills to support child development. This reignited the theory: practice binary and drove the development of a pedagogical practice leader. Policy changes introduced the Early Years Professional (CWDC, 2008) with a professional identity based on a hybrid model of pedagogue and teacher. As part of a wider modulation the Early Years Professional was perceived as a change agent who would implement the new curriculum (DCSF, 2008) and support the up-skilling of the workforce (CWDC, 2008). The need for graduate status and further training aligned with neo-liberal market ideologies and the link with human capital theory, educational priorities, meritocracy and social mobility. From a control

perspective training was a linear segment where progressive and continuous professional development was favoured.

Early Years Professionals

The desires of policy makers could reflect a hegemonic view of graduate professional leadership as a binary segment, linked to the perceived deficit notion of the workforce (CWDC, 2008). With the implementation of curricula frameworks (DCSF, 2008; DfE, 2014a) and the influx of public money it became increasingly important to demonstrate value for money. The upskilling and professionalization of a highly gendered traditionally low skilled and low paid workforce was an opportunity to engender a neo-liberal, managerial market model, to retain control and to commission research to demonstrate quality improvements (Sylva *et al.*, 2004; Taggart *et al.*, 2015) justifying initial and ongoing investment. New control modulations were formed when institutional power was actualized, in ECEC the drive for outcomes and effective practice are an example of this. The notion of quality was contested and hard to define (Dahlberg *et al.*, 2007) where process quality based on measurable outcomes became the basis for effective practice, both in its enactment and its measurement and judgement (Colley, 2006; Osgood, 2006a).

The instigation of Early Years Professionals as graduate leaders held inherent tensions as the statutory qualification requirement for setting managers was (and still is) an NVQ3 (DCSF, 2008; DfE, 2014a). Initially there were concerns that new graduates may not be well received by the sector (McGillivray, 2011) and there was the argument that a graduate leader might marginalise those holding a wealth of practice based experience (Osgood, 2009; 2012). The first tranche of Early Years Professionals who gained the status in 2007 were not viewed favourably and were perceived as a threat to the already established professional identity of the sector (Payler and Locke, 2013). There were tensions over ECEC leadership although ECEC graduates sought to define their own views of leadership (Rodd, 2006; Siraj-Blatchford and Manni, 2007). It could be argued that the notion of leadership is deeply rooted in a masculine society (Canella, 1997; Osgood, 2006a; 2012). Although the feminised nature of ECEC leadership has been unpacked it has been suggested this is set against a male dominated neo-liberal framework based on the values of the market (Skeggs, 1997; Colley, 2006; Osgood, 2006a; 2012) which are at odds with the caring nature of the ECEC sector. The need for permanent training and personal development impact how communities of practice and vocational (Colley, 2006) and academic study can reinforce and reinscribe expectations of professional practice (Gibson, 2013). In an attempt to re-humanise the ECEC professional training programmes and individual

contexts can be mechanisms of control and I have demonstrated how binary, circular, and linear segments influence Early Years Teachers in training (Fairchild, forthcoming).

Early Years Teachers

The current view of children as a central part of economic regeneration has been used to view ECEC under the lens of Early Education and that this has had a significant impact in the normative view of professional practice suitable for supporting this assertion. More recently this has seen ECEC reduced to a child's academic success and preparedness for school (Wilshaw, 2014). These dominant framings of children and ECEC seek to close down the debate where Early Years Teachers are expected to demonstrate measurable outcomes for children. Policy makers have built on the historic deficit discourses applied to ECEC practitioners and part of the Nutbrown Review (Nutbrown, 2012; 2013) was to explore and propose appropriately rigorous qualifications to take ECEC forward in a globalised world. Although Professor Nutbrown may have felt her review supported greater professionalization and opportunities to rid the workforce of the deficit notion only certain aspects of her report were taken forward (DfE, 2013a) and education and the school readiness discourses have become more prevalent. The promotion of Early Years Initial Teacher Education (EYITT) (NCTL, 2015) where meeting the Teachers' Standards (Early Years) (DfE 2013d) closely aligned the accreditation to the perceived rigour of other Initial Teacher Training programmes and the appointment of Ofsted as external inspector of the EYITT programmes (Gaunt, 2015) provide the control mechanism to drive through the Governments educational agenda. These developments see the influence of segmentarity provide mechanisms to develop one's professionalism. The need for certain qualifications note the binary, linear and circular nature of the segments which influences ECEC professionals. I argue the policy enactment provide a means to re-humanise the Early Years Teacher (and child), however the suppleness of the requirements produces a multiplicity of potentials for Early Years Teachers each being ephemeral as policy changes constantly realign professional requirements and boundaries.

Afterword

In this section I have revealed how policy, research, and wider literature of ECEC professional practice have produced certain notions of expected constructions and perceptions of the professionalism of the Early Years Teacher and the ECEC child. I have explored how, within societies of control, modulations and expectations produce the Early Years Teacher as a

segmented individual which is a feminised state where only perpetual education and retraining can achieve re-humanisation. Policy has produced both supple and rigid segments for the Early Years Teacher. Rigid segments control and define the Early Years Teacher as a means to place the child at the centre of economic regeneration. These are based on the debates where ECEC provision offers parents a model of childhood linked to social mobility, human capital theory, and their own productivity which redefines the notion of childhood. Additionally, the Conservative's (2015 – ongoing) central premise is that 'childcare' will help promote employment, more specifically maternal employment. However, suppler segments see Early Years Teacher open and materialise different policy interpretations as they seek to define their own professional identities and use agency to negotiate the ECEC landscape. However, I question whether the continuous modulations from unqualified, to vocational qualifications to graduate qualifications can ever allow the Early Years Teacher to fulfil a different more material potentiality as they try to achieve recognition and acceptance against an ever-moving expectation for professional development.

New generative visions for Early Years Teachers

In the previous section I noted how Early Years Teachers have been reified and produced in policy where a certain type of segmented professional was the resultant enactment. In this section I consider a more fluid nature of becoming-professional based on more material dimensions. Scholars have started to consider alternative visions for the Early Years Teacher, for example Canella argued that professionals needed to 'reject the view of educators and education as apolitical, accepting the power oriented, political nature of schooling' (1997: 167). She acknowledged the unpopular and threatening nature of moving past dominant discourses but felt educators seeing and feeling the world from multiple perspectives would be route to social justice. This is echoed by Dahlberg and Moss (2005) and Dahlberg *et al.* (2007) who problematize the distinction between technical and ethical practice and the false dichotomy produced when quality is seen as objective and a means to evaluate professionals. In this way, they take a postmodern view on what they entitle the ethics of encounter where Early Years Teachers reconfigure the way they see children and ECEC settings. The ethics of encounter is a more democratic view which challenges taken for granted assumptions of professional practice (Dahlberg and Moss, 2005; Dahlberg *et al.*, 2007). These alternative visions produce a suppler view for Early Years Teachers, however, although agency is demonstrated wider compliance is expected as policy and regulatory mechanisms reframe neo-liberal models of professionalism.

Material visions

There have been more material ways to view ECEC professionalism, for example, the work of Butler (1990, 1993) has been used to explore performative hegemonic gender positioning in ECEC (Osgood, 2006a, 2012). Butler's (1990) theory of performativity placed gender identity as a performance which was sustained by the reproduction of norms that replicate the dominant discourses of identity. Furthermore, the notions of gendered performativity was not inscribed by personal biological sex, gendered identities were revealed as part of a wider orientation of the potential structures which influenced performativity (Butler, 1990). Professional identity can be seen as performative when normative practice defines a universal notion of who professionals are, this reveals how professionals embody and enact performativity within their daily life. The highly-feminised nature of the English ECEC workforce and the influence of the neo-liberal market model of ECEC (Lloyd, 2012; 2013) makes Butler's work particularly pertinent. The manifestations of the gendered expectations of ECEC work, for example the discourse of care of young children, accentuates a repetition of normative behaviour. The performative nature of the repetition constitutes the gendered subject and the expectations that preclude it. It can be a challenge for ECEC practitioners to perform a gendered role differently, for example, the wider issues faced by male practitioners and the expectations of care within ECEC practice (Tennhoff *et al.*, 2015).

Butler (1990) drew on Foucault's power circulations to explore and expose gendered expectations (Jackson and Mazzei, 2012). Paradoxically agency is derived from these performative acts and can both reproduce or contest the foundation of stable identity categories (Butler, 2004). The theory of performativity troubles the humanist notion of the term 'identity' as it goes beyond the essential and stabilised identity categories (Jackson and Mazzei, 2012). Furthermore, Butler's (1990) figurations of identity were socially constructed, never finalised, and not constrained by the biological sex of the individual body. Here, the performative body was constructed by repetition and her conceptualization can help to form a bridge to Deleuze and Guattari (1987) where bodies are reconfigured, identity is in flux, and representational thinking is problematized. In later work, Butler (1993) explored the notion of bodies which become materialised by discursive practice.

Foucault and Intra-active visions

More recently MacNaughton (2005) drew on the work of Foucault when she and colleagues explored a range of ECEC practice case studies. This work allowed researchers and Early Years Teachers to critically deconstruct professional practice and consider sites for Early Years

Teachers to become activists. Swedish ECEC settings who had taken their inspiration from Reggio Emilia were the focus of inquiry for Olsson (2009) who detailed how Deleuzo-Guattarian desire and affect (Deleuze and Guattari, 1987) framed Early Years Teachers' pedagogical work. In her discussions with teachers she elicited them to bring new and creative readings to children and pedagogy by (re)viewing pedagogical documentation. The work of Barad (2007) was employed by Lenz Taguchi (2010) to explore the intra-action between teachers, children and the material world in Swedish preschools. Similarly to Olsson (2009) the preschools were Reggio inspired and pedagogical documentation was a means for Early Years Teachers to break apart the theory/practice divide. In this way, the teacher could learn new insights about events that had taken place in the preschool and move towards an ethical entanglement of immanence and potentiality.

Posthuman and New Materialist visions

Furthermore, Giugni (2011) conceptualized her own activism by drawing on Haraway's (2008b) practice of 'becoming worldly with'. She used this figuration to chart encounters with children, the curriculum, and material objects to re-theorise Early Years Teacher activism. Micro and macro-politics were the concepts activated by Cumming who explored Early Years Teachers and the forces which 'seemed to be implicated in shaping (un)acceptable ways of practicing, or being an educator' (2015: 63). Furthermore, English ECEC discourses on school readiness were interrogated by Evans (2015) who argued how Early Years Teachers could reframe readiness as an active-ethico-relation of becoming. Additionally, researching in South Africa provided Murris (2016) with an opportunity to decolonise both education and teacher education. She used a range of Posthuman and Feminist New Materialist theorists to reconfigure work with children. These generative reconfigurations was echoed by Osgood (2016) when she proposed Early Years Teachers (and other ECEC practitioners) explore leakages and ruptures between policy and professional practice to challenge normative expectations of ECEC professionalism.

Afterword

Within this section I have shown the notions by which professionalism and professional identity have shifted in con(cept)(text)ualization. Initially research and theorisations had focussed on the socially and discursively constructed professional (for example Grieshaber and Canella, 2001; Beauchamp and Thomas, 2009; Sachs, 2001) who saw qualifications and the EYFS curricula

requirement framing acceptable and appropriate professional behaviours. However, I demonstrate that since the 1980's scholars (for example Butler 1990; 1993; 2004; MacNaughton, 2005; Giugni, 2011 and Osgood, 2016) have noted the limits to discourse and have postulated new and more material ways to consider the Early Years Teacher. In the next two data encounter chapters I build on this work and develop in more detail the interplay between becoming-professional and being-teacher. I argue that becoming-minoritarian can act as a means to reveal and explore more-than-human entanglements which reveal the enriched relations that do not limit and segment the Early Years Teacher and child as human capital future workers.

Continuation

This chapter has presented a cartography of the Early Years Teacher building on, and synthesising, work and research on policy and professional practice. By working with the proposition 'what has been framed in successive policy and professional practice discourses for the Early Years Teacher' it has presented an archival and anarchival exploration of how the current favouring of a neo-liberal market led model of society has impacted on productions of ECEC policy and professional practice. The archive has detailed the 'straight story' where the influence of human capital theory and wider circulations of power have framed ECEC education as a site for children to become part of economic regeneration and has influenced the promotion of maternal employment.

Segmentarity

The exploration of ECEC professionalism can be con(cept)(text)ualized as various forms of segmentarity. Binary segments become more rigid as professionals are encouraged to become qualified – the alternative other being unqualified and unemployable (DfE, 2013a; 2013b). Segments are circular where dominant discourses at the centre radiate expectations such as appropriate professional behaviour and technical competence. Finally, linear segments track the professional's development as the ECEC practitioner seeks attainment of the correct type of professionalism. When viewing professionalism within a society of control (Deleuze, 1992) discourses on professionalism are modulations which encourages social and professional control. Paradoxically I argue in these instances the professional is never fully attained – one can never be professional enough, one can only experience modulations and remain in a

constant state of becoming and change. By providing definitions of what it means to be and act professionally control can be maintained as all within the designated occupation seek to ensure that they meet the accepted requirements. The individuals in these circumstances are seen as a dividual who is monitored and scrutinized (Deleuze, 1992) and reflected the need for continuous training as a means to re-humanise a precarious and gendered workforce. The dividual conforms to acceptable societal norms under the veil of surveillance, even if this is not always present. Here human agency and its interrelationships can be considered as a means to engender more supplier forms of segmentarity, however, this brings inherent tensions and possibilities which may arise from these kind of relational entanglement (Williams, 2005).

Putting segmentarity to work

Deleuze and Parnet (1987a) counsel there are dangers in both rigid and supple segmentarity. The cut of supplier segments can affect individuals ‘ways of perceiving, acting, feeling, our regime of signs’ (Deleuze and Parnet, 1987a: 157) as rigid segments that define ways to act are reassuring. ECEC professionalism has long sought legitimacy due to the perceived deficit model of ECEC practitioners (Cameron *et al.*, 2002; Vincent and Braun, 2011; Osgood, 2012; Payler and Locke, 2013). This coupled with gender hegemony (Canella, 1997) has seen ECEC posited as caring, mothering and women’s work. Rigid segments that set a level of professionalism can act as a legitimiser that ECEC is more than initially perceived. This desired legitimisation is still lacking (Hevey, 2013) and has been limited in the aims to increase status, pay and terms for Early Years Teachers (Nutbrown, 2012; 2013; DfE, 2013a). Paradoxically, it is in the exploration of affect, forces and flows that has led scholars (such as Žižek, 2004; Hallward, 2006; Noys, 2010; Povinelli, 2016) to argue that Posthumanism is consonant with neo-liberal capitalism. The rigid and supplied segments and the theorisations of societies of control are replicated in the neo-liberal market where a pliant and feminised workforce is needed (Tiqqun, 2012; Mirowski 2014). Professionalism in this context is either reified or de-valorised as directed by policy enactment in the market and these debates have been explored and analysed in this chapter. Instead, we can use segmentarity, flows and affects to tell a different story.

The anarchic has revealed the supplier engagement with the literature on policy and professional practice and the setting up of a new way to reimage Early Years Teachers. The resultant policy development of an ECEC curriculum (DCSF, 2008; DfE, 2014a) and the professionalization agenda have been productive forces. Initially the policy requirement was for a holistic multi-agency focussed professional who had a dual role of implementing a fledgling

curriculum and upskilling a perceived low skilled workforce. More recently the focus has shifted where ECEC is seen as preparedness for school with Early Years Teachers whose role is to ensure children's progress within a new more rigorous curricula framework. This change in focus has allowed researchers to question whether the school readiness/teacher discourse is ethically focussed on children and families. Scholars such as Oberhuemer (2005) have questioned how work with young children can be perceived as reflective and holistic stating a teacher is far more than a didactic knowledge transmitter. Furthermore, Dahlberg and Moss (2005) have pondered the move towards a more technicist focus on professional practice where Early Years Teacher competencies are assessed as a 'technical fix...on the wider societal consequences of the economic deregulation demanded by neoliberalism' (Dahlberg and Moss, 2005: 41).

Afterword – How might one live?

Deleuze's (2001) ontological project was a radical reframing of identity and representational thinking containing the overarching question of 'how might one live?' The ontology of life does not offer answers to the 'how' or provide a method for a life lived, it allows us to consider a way to approach living (May, 2005). These new ways to view life can be exemplified by the following:

We know nothing about a body until we know what it can do, in other words, what its affects are, how they can or cannot enter into composition with other affects, with the affects of another body, either to destroy that body or to be destroyed by it, either to exchange actions and passions with it or to join it in composing a more powerful body (Deleuze and Guattari, 1987: 300).

In chapter three (pages 51 - 92) I discuss how becoming-professional and becoming-minoritarian are a means to produce more generative ways to explore Early Years Teachers in more-than-human relations. Furthermore, this chapter details how alternative visions for Early Years Teachers might be enacted. In chapters three and four I will reveal the encounters with more material conditions of possibility for the four Early Years Teacher case study/events. I argue there is great potentiality in using Posthumanist theorising to explore complex entanglements and inter-relations within and between Early Years Teacher assemblages. By reconfiguring Early Years Teachers schizoid identity as becoming-professional becoming-minoritarian it becomes possible to accept the challenge 'why not think that a *new type of revolution is in the course of becoming possible*' (Deleuze and Parnet, 1987a: 147 emphasis in original) and it is to this I now turn.

CHAPTER THREE:

MATERIAL-ETHNO-CARTO-GRAPHY

Rethinking humanist ontology is key in what comes after humanist qualitative methodology. If we cease to privilege knowing over being; if we refuse positivist and phenomenological assumptions about the nature of lived experience and the world; if we give up representational and binary logics; if we see language, the human, and the material not as separate entities mixed together but as completely imbricated “on the surface” – if we do all that and the “more” it will open up – will qualitative inquiry as we know it be possible? Perhaps not.

Patti Lather and Elizabeth A. St. Pierre (2013: 630).

Introduction

In this chapter I reimagine methodological possibilities and consider what happens when research inquiry is entangled with Posthumanist theorising. I work with the proposition ‘create generative post-qualitative inquiry’ as the tensions of methodology and method are explored within this chapter. The epigraph above from Lather and St. Pierre (2013) is a reminder of the challenges of researching the decentred human subject. From my close reading, it became clear that there were no clear guidelines as to what constituted Posthumanist research practice and that scholars were actively encouraging creative and productive entanglements with methodology (for example, MacLure; 2011; Koro-Ljungberg, 2013; Koro-Ljungberg, 2016). The desire for researchers to be given methodological guidelines jars with the fluid and connected nature of Posthumanism. Furthermore, Koro-Ljungberg (2012a) reminds us that defining appropriate research practices reifies and fixes knowing/doing research as a series of ‘true’ and ‘right’ ways of performing methodology. Although Fox and Alldred (2015), who completed a meta-analysis of thirty Posthumanist academic papers, suggested that research designs with a materialist ontology attended to the Posthuman body and associated affective flows, whilst exploring the material and the cultural nature of macro and micro-politics. Fox and Alldred (2015) suggest that the commonality in Posthuman work is the orientation towards the non-human. Furthermore, I take heed from scholars who call for creativity within methodology and consider how both the human and non-human relationality can be explored in my inquiry.

Charting a methodology

The purpose of this chapter is to chart the development of my methodology for this doctoral inquiry. As the focus of this research is an exploration of Early Years Teacher relations-in-the-world my original thought was to use an ethnographic methodology (Atkinson, 2015), as I considered this would allow me to engage with teachers in their own environments. The word ‘ethnography’ is derived from Greek (ἔθνος ethnos “folk, people, nation” and γράφω grapho “I write”) and is used in contemporary research to detail the exploration, study, and documentation of humans within their social and cultural contexts. Reflecting on the etymology and current concepts of ethnography left me considering whether this would allow me to successfully fulfil my Posthuman aims for this inquiry. Furthermore, during the data generation it became clear that the Early Years Teacher experiences required me to go beyond the traditional notion of ethnography. I am aware that both in anthropology and ethnography there are scholars who have explored cultural contexts where the non-human is attended to in a reconstruction of Western modes of thought (for example Viveiros de Castro, 2004; 2009; Kohn, 2013). Furthermore, the work of human geographers (for example Anderson, 2014a) have commenced explorations employing what they entitle Posthuman anthropology. Within this chapter I seek to build on past work to generate my own propositions for this inquiry.

The resultant methodological cartography presented in this chapter was based on the above paper and a presentation in July 2016 within the ‘Post-qualitative methodologies of difference’ strand of the Gender, Work and Organization Conference (Koro-Ljungberg *et al.* 2016). I was/am part of a wider research-creation event and the affect generated by this, still on-going, event resonated with my desire to engage with difference and to become-with post-qualitative inquiry. My methodological proposition has developed a title of its own, a material-ethno-carto-graphy, this title reflects the co-relational entanglements of humans, non-humans, methods, data, and inquiry. I develop this methodology as a means of becoming-minoritarian, what Manning (2016) would call the minor gesture, which is akin to Deleuze and Guattari’s (1987) notion of minor. The minor gesture ‘creates site of dissonance, staging disturbances which open experience to new modes of expression’ (Manning, 2016: 2). Coupled with becoming-minoritarian/minor gesture I will explore earthworm disturbances as the methodology is developed, this will allow an agitation of the soil of qualitative research practice. These disturbances will be used to activate thinking about methodology in a different way and this chapter will blend the ‘straight’ story with the diffracted story.

A Posthuman Ontology

Within all doctoral research projects an exploration of epistemology and ontology provides the backbone for the resultant theoretical framing of the project. Part of these explorations allow the researcher to study the world surrounding her to understand the conditions for its existence. As St. Pierre *et al.* (2016) note this framing separates the subject from the object and sets conditions for metaphysics, the reality of things; epistemology, the origin and nature of human knowledge; and ontology, the science of being, how things are known in the world and the relations between them. Descartes has been considered the ‘father of foundationalism’ (St. Pierre *et al.* 2016: 102) when he posited the *cogito* as the thinking, knowing, human subject with all inanimate matter as passive and inert, waiting to be discovered, explored, and theorised. In this way, the subject/object binary was fixed and there was a split between epistemology and ontology, with epistemology retaining the position of primacy (St. Pierre, 2016b). These philosophical positions left the world out there ready to be explored, experimented on, and known by the rational human subject where knowledge gathered could be presented *a posteriori*, an empirical fact based on proof of experience or experiment, or *a priori*, a deduction from pure reasoning independent from evidence.

Rethinking epistemology and ontology

A key aspect of the Posthuman turn is a rethinking of ontology and epistemology and an attention to the reframed subject with a focus on relationality. In this way, the human subject can be de-centred and seen as part of a flat ontology (DeLanda, 2002), where privilege and agency is a more-than-human-concern. Lather details how the dissolution of the Posthuman subject sees a shift from ‘an epistemology of human consciousness to a relational ontology’ (2016: 125). Taylor (2016b) concurs with this statement detailing that the breaking apart of the binary subject: object position reframes the knowing, knowledge making Cartesian subject. Within a flat ontology St. Pierre (2016b) has argued that current views of epistemology and ontology are always already imbricated in past/current humanist conceptualizations of knowledge production. She detailed that the separation of epistemology from ontology, as proposed by Descartes, required stable systems within which social life could be studied. In fact, it becomes a challenge to think epistemology once the human subject has been decentred from within an assemblage of relations, as epistemology is based on human conceptualizations of the world. Therefore ontology tends to be the primary focus of a Posthuman inquiry which looks for a different way to engage with life. This leads to an opening out of new ways of living

and new bodily capacities which pay attention to humans and non-humans in more-than-human engagements. The question of life is more than a life lived in the traditional humanist notion of life: it is an ontological project of life (May, 2005).

An ontology of becoming

Within this thesis I employ the Deleuzo-Guattarian (1987) notion of becoming as a means to explore Early Years Teacher relations-in-the-world. I argue that this concept allows me to generate a different image of the Early Years Teacher and the children they work that moves beyond the modulated and segmented teacher. It is important to note becoming and being are distinctly different, the being subject is the traditional rational self (Semetsky, 2006), whereas the becoming subject is in a constant process of interconnections. Ontologically becoming moves the subject from a transcendent stable self to a constantly changing assemblage and I will harness these movements as I reimagine the Early Years Teacher relations. In this way I argue that a different re-humanisation of Early Years Teachers and children can be produced as the meta-narratives of policy and expected professional practice move beyond the discursively and socially constructed professional to a more material becoming-professional. I have already started to conceptualize the notions of becoming-professional in a paper on Early Years Teacher training pathways (Fairchild, forthcoming). In this paper becoming is exemplified in the relations between humans and non-humans, for example how an Early Years Teacher and a child with limited language connect in a hall space and how a bag of lids allows another Early Years Teacher to connect with a child and aspects of child development. Additionally, Cumming (2015) argued that being and becoming are relational, with being a moment of the processual relationship of becoming. In her work Cumming explored critical incidents which she entitled moments of being occurring in ECEC professionals' lives. She then related the impact these moments had on the complexity found in ECEC relations within workplaces (Cumming, 2015).

Immanence and becoming

All relational entanglements occur on flat a place of immanence (Deleuze, 2001) which connects 'new ideas and possibilities for thinking' (Colebrook, 2002: 57). Immanence can also be described as the 'specificity or singularity of a thing; not to what can be made to fit into a pre-existing abstraction' (Coleman and Ringrose, 2013a:10). The concepts of immanence and becoming are a consistent feature of a Deleuzo-Guattarian philosophy and are a useful way to

review the production of being professional and defining professionalism which has tended to take a segmented linear view of personal growth and development. Moreover, the term becoming relates to a zone of indiscernibility that exists *between* the interconnections. Deleuze and Guattari (1987) conceptualize this by considering the moment of pollination between the orchid and the wasp, at that intense moment the ‘discernibility of points disappears’ (Deleuze and Guattari, 1987: 342). It is (on)(in) these borders of becoming-orchid becoming-wasp where these encounters occur and each subject becomes indiscernible, at this point of transformation becoming affects both and ‘becoming is something between the two, outside the two’ (Smith, 1997: xxx). Furthermore, it is (in)(on) these zones of indiscernibility that difference is produced. Here difference is more than ‘difference from the same’ (Stagoll, 2010a: 74), it is ‘difference-in-itself’ which is positive and productive (Deleuze and Guattari, 1987). Moreover, thresholds of becoming are self-sustaining and engender wider connectivity producing becomings elsewhere. In ECEC becomings have been exemplified by Sellars (2013) who explored how children connect with the Aotearoa New Zealand curriculum. In this example the children’s becomings embodied their childhoods and allowed for a re-imagining of their learning experiences. Furthermore, Olsson (2009) used the image of a surfer to note the connections of becomings between a toddler trying to walk. She also explored aspects of children’s play imagining how children might role play a dog extracting an aspect of ‘dogginess’ (Olsson, 2009: 194) as part of their becoming.

Deleuze and identity

In *Difference and Repetition* Deleuze (1994) debates identity as more than static representation, it is the product of relations within and between a multiplicity (an assemblage of relations). Here becomings are the junction’s between connections, the zones of indiscernibility, of relational connection in which difference-in-itself and new modes of life are revealed (Deleuze, 1994). Each repetition (event of difference) happens eternally – the eternal return (Deleuze, 1983). Each eternal return is premised on difference and the return never brings back the ‘same’ conditions as before, Deleuze detailed ‘such an identity, produced by difference, is determined a “repetition”’ (1994: 52). The concept of becoming allows for a reconfiguration of the Posthuman subject who is not fixed and stable or a linear movement from A to B for example from novice to expert. Goodchild (1996) notes Posthuman subjectivity is not a position of anti-humanism, he questions whether subjectivity is an internal process driven by human interaction or alternatively a subjectivity in relations with the non-human world. Therefore, the becoming subject is in constant flux and connections drive these flows, however the subject is not fixed to

any of the relational elements it is entangled with (Braidotti, 2002). This means agency is greater than human action and is distributed across human and non-human co-relationality (Fox and Alldred, 2015). Paying attention to being and becoming I develop in more detail the notions of becoming-professional and being-teacher as different modes of existence which reveals the complex juxtapositions faced by Early Years Teachers.

Becoming-Minoritarian and nomads

Minoritarian and order words

The term minoritarian has developed with reference to what Deleuze and Guattari (1987) entitled 'order words'. The order word being 'a pass-word that both compels obedience and opens passages' (Conley, 2010b: 166). In *Essays Clinical and Critical* Deleuze (1997) argues that language became/was inherently political as order words could be adopted to form social controls. Here, the 'major' language of order words is the language of power and control, with the 'minor' language a passage to open up wider becomings and revolutionary conditions (Smith, 1997). With language and the political intrinsically linked the position of becoming-minor was also politicised. As I develop becoming-professional and being-teacher I connect this to Deleuze and Guattari's (1987) concept of minoritarian. I argue that Early Years Teachers are exemplars of the paradoxes of becoming-minoritarian as ECEC is a site of minor politics. Successive neo-liberal agendas have posited ECEC in need of professionalisation, more recently using the languages of schools (Gibb, 2017). These discourses have produced a major politics which influence how Early Years Teachers should enact policy, research and expected professional practice. The resultant mode of existence, being-teacher, is part of the re-humanising efforts of policy makers. However, in this inquiry Early Years Teachers reveal a different enactment of becoming-professional. The flows between being-teacher and becoming-professional details the schizoid identity which allows for a more-than-human relationality. It is in this way I use the notion of earthworm disturbances as a means to reveal wider aspects of becoming-minoritarian as the earthworm refutes representation which opens the way for new ways of thinking Early Years Teachers.

Minoritarian, nomads and becoming

Deleuze and Guattari (1987) debate that all becoming is minoritarian and that becoming-with is an agent of becoming. For example, they cite becoming-woman as a minoritarian position which allows for new modes of resistance to expected norms. Although they acknowledge that minorities are defined as deficit they debate the potential of becoming-minoritarian as a means to release and trigger wider movements of resistance and counter-culture. Theoretically these juxtapositions are revealed in the nomad who has been defined as one that resists the centralised and hierarchical notion of State control (Deleuze and Guattari, 1987). Furthermore, the nomad is considered as one who traverses customary paths but not always from point to point, rather in the in-between points (or *intermezzo*) which can be compared to that of becoming-minoritarian and minor science/language. Braidotti (2011a: 66) describes nomadism as ‘not fluidity without borders, but rather an acute awareness of the nonfixity of boundaries’, the nomad has an intense need and desire to keep transgressing from fixed pathways. However, Deleuze and Guattari (1987) argue the nomad can be considered as one who is not moving but intensifies themselves. They state that the nomad is the one who ‘does not want to depart, who clings to the smooth space left by the receding forest...and who invents nomadism in response to the challenge.’ (Deleuze and Guattari, 1987: 444). The becomings of Early Years Teachers encountered will be con(cept)(text)ualized as earthworms where becoming-minoritarian details a counter production to the meta-narratives of the technicist professional with limited agency within regulatory frameworks.⁹ Becoming-nomad is a reinvention of self a process of transformation where ethico-political forces and flows coalesce to produce molecular differentiation. Becoming-minoritarian, becoming-nomad, becoming-woman are powerful and subversive acts which reject regimes of signs, practices and embodied histories (Braidotti, 2011b). These figurations are a consideration of earthworm disturbances where the turning and returning of self produces tunnels and aerations and opportunities for Early Years Teachers to break free from the precarious, dehumanised, feminised subject produced via policy enactment. In this way Early Years Teachers can reject these wider meta-narratives where becoming reveals supplier and more material approaches to their relations-in-the-world.

⁹ This position has been argued in chapter two 21 - 48.

Challenges of the subject undone

This inquiry is concerned with Early Years Teachers who, as previously discussed (page 5), are predominantly women who have been marginalized in policy. I have considered not only how my feminist politics and ethic of care towards Early Years Teachers can be resolved by a dissolved subject position, but also the desire not to disavow the personal and professional journeys Early Years Teachers have undertaken. Part of this is taking heed is where Braidotti (2011b) urges feminists to be aware of the politics of location and pay attention to wider figurations which are ‘more materialistic mappings of situated, embedded, and embodied positions’ (Braidotti, 2011b: 13). I propose to use becoming-minoritarian as a means to challenge traditional hegemonic meta-narratives of policy and professional practice. By being open to a more material relations-in-the-world I hope to reveal new, generative, and positive ways to explore the Early Years Teacher: child couplet which go beyond policy and practice expectations to produce different insights into the notion of becoming-woman.

Feminist politics

A pillar of feminist theory is the politics of location (Braidotti, 2007), which allows for critique of structural and intersectional inequalities and gender hegemony. Haraway (1988) employed the term situated knowledges as a means to problematize and challenge standardized notions of objectivity and the ‘god trick’. She stated ‘I am arguing for politics and epistemologies of location, positioning, and situating, where partiality and not universality is the condition of being heard to make rational knowledge claims’ (Haraway 1988: 589). Thinking with the dissolved subject sees the subject undone (St. Pierre, 2004), however Hinton has questioned how a dissolved subject position can support the political positioning of women as wider debates ‘requires something *of* identity in order to ground its political aspirations’ (2014: 102 emphasis in original). Furthermore, Grosz (1994) provides a critique of Deleuze and Guattari’s framework and notes that although putting their theory to work offers different possibilities for feminist thought it does not always resolve the phallogocentric hegemonic positioning of women. These thoughts are particularly pertinent when considering the highly-feminised nature of ECEC practitioners.

Development of my own feminist politics - new feminist questions

Colebrook (2000) acknowledges these potential challenges for feminist thought, but argues that the work of Deleuze and Guattari can be used to ask different questions, for example ‘Can

feminism be a subject or identity when these concepts have for so long acted to ground and subordinate thought?’ (Colebrook, 2000: 11). She considers that becoming-molecular can be put to work to consider what she entitles the ‘challenges of differentiation’ (Colebrook, 2000: 12) to engender different views for feminist thought. Braidotti is in agreement when she sees Posthumanism as a new ‘intersectional feminist alliance’ (2007: 69) and discussed how these new radical ways explore feminist thought as positive and productive. Furthermore, Van der Tuin considered the generative potentiality of Posthumanist theorisations and feminist theory as she debates how these new ways of thinking cut ‘across of the binary opposition between majority and minority’ (2015: 56). Van der Tuin argues these new ways of thinking becoming-woman from a Deleuzian or Feminist New Materialist position provides creative ways to engage with the juxtapositions and stutters (Deleuze and Parnet, 1987a) which can be used to challenge modern gender hegemony.

These new feminist questions in my work have been posed as a series of propositions which drive the wider inquiry and affirmative analysis (see pages 2-3, 5 and 9 for examples). By employing becoming-professional and being-teacher I explore how more-than-human subjectivities can offer different ways to reimagine Early Years Teachers in enriched relations with the non-human world (see page 5 and 9 for a discussion as to how my own feminist politics have influenced the selection of the human participants). The position of collective-body/researcher-assemblage (Lenz Taguchi, 2013) does not come without challenges and I have already noted the pull of traditional qualitative research and analysis and how this influences thinking/knowing/feeling and putting Posthuman concepts to work (Fairchild, 2016a; 2016b). Additionally, I have also explored how ontology and epistemology might apply to the decentred human subject position and debate how to employ the flux and flow between becoming-professional and being-teacher to reveal more-than-human entanglements noting the tensions of doing feminist work with Posthumanism. Like the earthworm I have aerated, (re)turned, and agitated the soil of the dissolved subject. I now consider how an entanglement with post-qualitative inquiry might be the means to (in)(on) the plane of immanence and connectivity.

Post-qualitative inquiry

In the chapter two I started to develop my rationale for employing Posthumanism to explore wider Early Years Teacher relationality (pages 23 - 50). The remainder of this chapter will note how I might harness post-qualitative research practices in an engagement with my Posthuman propositions. I have theorised my initial explorations with post-qualitative work as a

methodological umbra (Fairchild, 2016a; 2016b), part of this considered human intentionality and how problematic this is with regards to Posthuman post-qualitative work. This notion of intentionality is problematic on a number of levels which include the decentred human subject in relations on the plane of immanence, difference and the eternal return which highlight the randomness of connections within and between assemblages. However, the generative nature of post-qualitative work releases researchers from traditional conventions which allows for a freedom to explore bodily interventions, affect, connections and relationality. This freedom is important for the inquiry explored within this thesis as by revealing Early Years Teachers relations-in-the world I can attend to and unsettle traditional hegemonic notions of policy and expected professional practice which seeks to sediment and segment the Early Years Teacher and the children they work with.

Post-qualitative inquiry which unsettles traditional research practice

The emergence of post-qualitative inquiry has been used as a means to unsettle and deconstruct traditional qualitative research practices (for example St. Pierre, 2011; Lather and St. Pierre, 2013; Taylor and Hughes, 2016). This move reflects an extension to current philosophical worldviews on research practice as St. Pierre (2013: 646) notes ‘Scholars whose work has been labelled “post” ...provided a diverse array of analyses to interrogate the ontological and epistemological order of things in Enlightenment humanism’. The post-qualitative turn has arisen as scholars have questioned whether traditional qualitative research practices could be seen as more mechanistic, losing their innate ‘qualitative-ness’ and moving towards a more ‘positivist social science. (Guttorm *et al.* 2015). In addition, MacLure (2011) questioned how successful researchers have been in putting theory to work within the confines of traditional qualitative research and sees the move to a more post-qualitative inquiry as a means to engage in a wider political and ethical methodological project.

Attention to work that takes a more material turn allows for a greater focus on ontology and as the ‘posts’ deconstruct the subject the traditional notion of epistemology becomes disrupted (St. Pierre, 2011). Here, post-qualitative inquiry considers the generative possibilities of the ontological (re)turn to inquiry where humans and the non-human world are seen as co-constitutive relations rather than as binary opposites (St. Pierre, 2016b). These new ways of inquiry have led to questions on whether traditional methodology and methods are sufficient for work with the de-centred human subject (Taylor, 2016b; Taylor and Hughes, 2016; St. Pierre, 2016a) and Jackson and Mazzei note plugging theory into inquiry ‘illustrates how knowledge is opened up and proliferated rather than foreclosed and simplified’ (2013: 261). Moreover, I acknowledge that anthropologists (for example Strathern, 2003; Ingold, 2007b; Viveiros de

Castro, 2004; 2009) have been grappling with these dilemmas for some time and those cited have challenged some of the notions of Western thought as part of their explorations.

More than representation

One of the central elements to post-qualitative work is the move away from representational thinking and an anthropocentric view of the world (Taylor, 2016b). In fact, Deleuze and Guattari argue representation ‘fails to capture the affirmed world of difference. Representation has only a single centre, a unique and receding perspective, and in consequence a false depth. It mediates everything, but mobilises and moves nothing’ (Deleuze and Guattari, 1994: 55). Working with representation and creating categories of existence leads to arborescent schema which promote binaries and hierarchies. Deleuze and Guattari (1987) discuss tree logic which, in their view, is a pseudo-multiplicity where hierarchies and power dominate representational thought. They consider the rhizome (Deleuze and Guattari, 1987) as a mechanism to disrupt tree logic and a way of working in the middle (*intermezzo*) to promote difference and multiplicity. Furthermore, Massumi (2015: 170) suggests ‘naming is a technique for fixing the procedures, in the sense that you fix a compound’ producing arborescent tree logic. Although MacLure (2013b) debates whether humans need a level of fixity she also acknowledges that this does not always generate different ways to view the world. However, I am mindful of the need for some fixity in research practice (Law, 2004) but also acknowledge that a fluid and critical approach to research inquiry can facilitate different ways to enact practice (Koro-Ljungberg, 2016).

Post-qualitative inquiry and language

Furthermore, research has been steeped in the linguistic turn and as such language provides us, as humans, a means to represent our world. This is exemplified by Koro-Ljungberg (2012a) who considers the power of research language which she argues fixes ways of knowing/doing which then stands true for all future incarnations of research practice. Additionally, in Koro-Ljungberg’s view researchers need to consider a way to deform and stretch language as part of critical inquiry (c.f. minor language Deleuze, 1997). I note the consonance with Deleuze’s exhaustion of language (1995) and I push the boundaries of the linguistic turn and I take this forward as part of the becoming-minoritarian/minor gesture aspect of this thesis. In *The Logic of Sense* (Deleuze, 1990) Deleuze offers a mechanism to overcome these linguistic challenges by considering how verbs can be used to trouble and unsettle thinking. Here he suggests the verb

has two functions and can define ‘A denotable state of affairs in view of physical time characterised by succession; and the infinite, which indicates its relation to sense or to an event in view of the internal time in which it envelopes’ (Deleuze, 1990: 211). Furthermore, May (2005) considers how language orients bodies in certain ways at the meeting point of language and the world (c.f. Ahmed, 2010) when he argued ‘the event subsists in language, but it happens to things’ (May, 2005: 103).

Language as a minor gesture

In this instance, and within this thesis, language challenges *doxa* and presents us with a paradox for us to review, rethink and consider. In *A Thousand Plateaus* Deleuze and Guattari (1987) proposed order-words as a mechanism to trigger incorporeal transformation. Furthermore, order-words are assembled in a regime of signs and intervene in bodies as expression directing contents within the assemblage (Bonta and Protevi, 2004). These concepts of order-words also link to major and minor languages (Deleuze, 1997). By viewing a move from representation as a minor turn it becomes possible to explore other forms of presentation as becoming-minoritarian (Deleuze and Guattari, 1987) where research inquiry can rupture and unsettle the need for categorization. Non-representational research can focus on events, relations, affect and ‘doings’ of research practices (Vannini, 2015). Furthermore, Manning (2016) proposes minor gestures as a means to trouble the dominant normative view of life. The minor gesture has no *a priori* knowledge, but is a force, a rhythm that courses through the segmented stratified life. Manning states that ‘The minor isn’t known in advance. It never reproduced itself in its own image’ (2016: 2) which highlights the link to non-representational modes of thinking/doing/feeling research. I will (re)turn to the concepts of becoming-minoritarian/minor gesture and the use of language throughout this thesis as the diffractive cartography of Early Years Teachers is explored/revealed. Furthermore, I will use earthworm disturbances as a means to become enmeshed in rhizomatic entanglements with methodology.

Post-qualitative work as critical ethical and political praxis

Within the introduction I detailed how my work would produce different notions of political and ethical entanglements as I develop more-than-human subjectivities. In this section I conceptualize how I will put this to work in my thesis. Critical qualitative research has a long history with scholars who challenge hegemonic norms across a spectrum of multidisciplinary topics. It has been used to explore, deconstruct and problematize the social and cultural world to

reveal life at the margins with its emancipatory outlook (for example Steinberg and Canella, 2012). However, Latour argued that critique can be a problematic concept where ‘a certain form of critical spirit has sent us down the wrong path’ (2004: 231). Furthermore, he questioned whether critical analysis had been critical enough (Latour, 2004).

Clinical practice

Moving forward and considering post-qualitative work MacLure (2015) asked how critical work can be undertaken for emancipatory and transformative reasons if one ascribes to the ontology of a decentred subject and a disruption and troubling of identity categories. Additionally, she argues whether it is possible to attend to the circulations of power when agency and consciousness are not the primacy of humans. She asserts that the challenge with critique is that it closes down thinking and arrests transformations as representational logic is applied (MacLure, 2015). These types of arborescent schema allow for wider normative power circulations even if the critical work has a focus on emancipation or transforming the lives of the researched. She draws on the work of Holmes (2014a; 2014b) and frames Posthumanist critical theory as ‘clinical practice’ (MacLure, 2015:107) where research seeks to consider and modulate flows of affect and discourse to give new insights into the social and material world (c.f. Deleuze, *Essays Critical and Clinical*, 1997).

Inquiry as political work

Koro-Ljungberg (2016) reflects on how qualitative research is political for a number of reasons including the circulations of power and legitimacy about representing lives. Post-qualitative work is couched against the current privileging of positivist and evidence based research, particularly so in education and ECEC (for a critique see Biesta, 2007; Moss, 2014) which can restrict the notions of what research counts and how it should be undertaken. Under these conditions, Koro-Ljungberg argues that creative and critical engagement with theory and methods is a political move and she states, ‘critical social science research and qualitative work in particular needs more rejoinders to scientific reductionism and the ever-increasing lack of onto-epistemological diversity and methodological creativity in higher education’ (Koro-Ljungberg, 2016: 8). Moreover, normative ways of qualitative research produce the need for controlling validity and reliability (for example Cohen *et al.*, 2011). Lather (1993) started the call for a more fluid consideration of validity and proposed four new ways to image validity in

post-foundational work. One of these was ‘rhizomatic validity’ (Lather, 1993: 680) where the counter logic of validity was located in between methodology, data and researcher. Rhizomatic validity is an example of how paradox is produced in research where lines of flight can be revealed within a ‘proliferation of becomings’ (Lather, 1993: 686). Koro-Ljungberg (2010) also sees validity as partial and incomplete and draws on Derrida’s notions of responsibility and aporia to think about validity and the limits of validity in inquiry. She concludes that researcher decisions premise validity rather than the structural means they might follow and that validity ‘is in doing, as well as its (un)making, and it exhibits itself in the present paradox of knowing and unknowing, indecision, and border crossing’ (Koro-Ljungberg, 2010: 609).

Post-qualitative validity and responsibility

For the purpose of validity in this inquiry I have drawn on both Lather (1993) and Koro-Ljungberg (2010) as a means to develop a frame for validity in my work. This has included an immersion in theoretical concepts that support my inquiry and an acknowledgement of my own potential bias. Bias could infect sampling, debates on data, analysis, and theoretical engagement. When considering Lather’s notion of rhizomatic validity (1993) I had initially been in a reflexive phase with my supervisors who helped me tease out my positioning and inquiry focus. During the field work phase I was aware of the need to pay attention to both human and non-human participants and did this via the use of the chosen methods, paying due regard to both humans and non-humans. The use of images has been a means to explore more than textual strategies to collect data and I wanted the images to enfold and flesh out the data. Furthermore, during the analysis I was conscious not to foreground human participants, responses to data paid consideration to humans and non-humans in more-than-human encounters. All these strategies sought to disrupt and unsettle my inquiry and allow for an opening up of anarchival relays (SenseLab, 2016) to congeal and coagulate knotted nodes within and between assemblages.

Earthworm disturbances and clinical practice

I employ the notion of becoming-minoritarian/minor gesture in this inquiry as earthworm disturbances and clinical practice as I seek for new ways to explore human and non-human entanglements in more generative ways. The move towards post-qualitative inquiry sees pure difference open up possibilities of more-than the discursive and linguistic turn which, although valuable in highlighting hegemony and power fluctuations, have yet to move forward and resolve the hegemony it challenges and critiques. The minor gesture is present in post-

qualitative research as it is lively and creative where ‘fields of inquiry for reframing how knowledge is produced beyond typical forms of academic use-value’ (Manning, 2016: 11). In this thesis, diffractive ways of exploring Early Years Teachers and more-than-human entanglements will provide an insight into clinical practice and post-qualitative validity which counter hegemonic notions of policy and appropriate professional practice.

Generating a methodology

The material-ethno-carto-graphy becomes a means to engage in what I have entitled earthworm methodologies. It is a concept to activate thinking about methodology in post-qualitative work. I draw on the notions of Haraway’s metaphor of the earthworm (Haraway, 2016; Benozzo, Carey, Cozza, Elmenhorst, Fairchild, Koro-Ljungberg and Taylor, under review) to engage in the disruption and challenge of traditional ethnographic study and a turn and (re)turn of the soil (humus/humusities – Haraway, 2016) of post-qualitative inquiry. The material-ethno-carto-graphy is itself a living research-creation event which ‘animates the strangeness of the everyday’ (Thain, 2008: 1). SenseLab consider how to capture the potentiality of the research-creation event as an anarchive (SenseLab, 2016) a means of viewing the traces and carriers of potential which activates new research-creation events (Massumi, 2016: 6). The anarchive is co-implicated with the archive which tells the ‘straight’ and potentially sedimented story, Murphie details that the archive is a repository for the past and an activator of future possibilities which are revealed in the anarchive as a ‘potential for feeling’ (2016a: 41). The living material-ethno-carto-graphy allows this inquiry to act as an anarchive (Massumi, 2016) which reveals what has been produced in the wider thesis event.

Creating a methodology

Within the material-ethno-carto-graphy I take up Koro-Ljungberg’s (2012b) challenge ‘Researchers of the World, Create!’ and used this as a figuration for thinking my inquiry. Material-ethno-carto-graphy is a becoming, a cartography, a rhizome in as much as elements are drawn together in a heterogenous way to trouble methodology. Deleuze and Guattari (1987) detailed that a cartography was a means to map connections within a rhizome. The ‘map is open and connectible...has multiple entryways, as opposed to a tracing, which always comes back “to the same”’ (Deleuze and Guattari, 1987: 12). The map, therefore, is not concerned with representation and meaning making in a traditional sense, it is more concerned with connectivity

and relationality and heterogeneity. Material-ethno-carto-graphy becomes a means to map methodological ‘lines of articulations and lines of flight’ (Martin and Kamberelis, 2013: 671) revealing new actualizations which decentre research and writing practices.

Extending cartography

Furthermore, I extend the notion of cartography and consider Barthes (1990) who suggested how text can shift form from a readerly text to a writerly text. Ulmer and Koro-Ljungberg (2015) drew on Barthes to explore cartographical disruptions and how they could use these to engage the reader in a diffracted and differential reading of the text. By writing visually within this thesis (Ulmer and Koro-Ljungberg, 2015) I use different means of exploring writing alongside relevant images to stimulate thinking about methodology (and more) as an earthworm writing event. Here the images are a means to reveal the locations and material objects which were present in the ECEC settings, and are used as a provocation to trouble and disturb the written data (interviews and observations). Deleuze and Guattari (1987) saw writing as a means to bring to life speeds and slowness and the production between happenings as ‘the event is sense itself’ (Deleuze, 1990: 22). Furthermore, Colebrook observes how writing enables different orientations and the creation of minor deflections ‘this truly enables the possibility of reading and writing *not as modes of replication* (tracing a pattern) but as modes of mapping’ (2012: xi emphasis in original).

Why ‘material-ethno-carto-graphy’?

The next question is with regards to why this methodology has been entitled material-ethno-carto-graphy. As detailed previously I had originally wanted to adopt an ethnographic methodology as a means to work with four case studies (page 67). The more engaged with Posthumanism and post-qualitative work I became, the more I realised that the notion of ethnography was not totally congruent with the needs of my inquiry. Moreover, working with Early Years Teachers revealed entanglements with the non-human world which required a more fluid approach to methodology. Post-qualitative scholars had also questioned the use of traditional research methodologies and methods, for example Taylor (2016a) discusses how new forms of research practice can help to answer questions about knowledge, research, and data. Furthermore, Jackson and Mazzei (2016) ponder how research practice can take account of Jane Bennett’s (2010) vibrant matter, where ‘objects become things when they become energetic and make things happen’ (Jackson and Mazzei, 2016: 95). I argue that the material-ethno-carto-

graphy is a means to generate data from both humans and non-humans. It is a becoming-minoritarian/minor gesture methodology as it seeks to move beyond researching the dominant framing of Early Years Teachers enacted in policy by paying attention to them as they engage with and become enmeshed in more-than-human connections and relations.

Participants in/through the material-ethno-carto-graphy

Within traditional research practice I may have decided on a case study approach (Cohen *et al.*, 2011) however, when disrupting this concept, the work with the participants will be seen as a Deleuzian event (Deleuze, 1994). In this way, I have considered the event as the interactions with the participants (human and non-human) and the connections and knotted confluences which are revealed during this inquiry. Here the event arises from a particular set of forces that produce and are in continual flow (Stagoll, 2010b). Livesey (2007) also notes that Deleuzian events address the spatial and temporal aspects of relationships within and between events, here Deleuze can address both complexity and chaos in the world.

Human participants

Initially human participants were selected by purposive sampling (Cohen *et al.*, 2011). An invitation was sent to all Early Years Teachers who had used the Teachers' Standards (Early Years) (DfE, 2013d) and had either undertaken their training at a University in the South East of England between September 2013 and August 2015 or acted as a mentor during this period. From the initial expressions of interest there were five Early Years Teachers who were identified as possible participants. They were selected as I was interested in working with Early Years Teachers and settings which fell outside of the most common type of ECEC setting; the private full-time nursery.¹⁰ As the project commenced the five settings reduced to four once the data collection/generation commenced as one setting decided that they no longer wished to participate. I allocated pseudonyms to the four remaining participants: Hannah, a Reception Teacher in an all-girls Private School; Rose, a Deputy Manager of a pack away Montessori

¹⁰ The private full-time nursery tends to be open for 51 weeks of the year between 8.00 a.m. and 6.00 p.m. It forms the largest share of the ECEC market in the UK. This is explored more widely in chapter two (pages 23 – 50).

setting; Sarah, a child-minder; Claire, an Early Years Teacher and Nanny¹¹. These four case study/events allowed me to work within four settings in the South East of England which were spread across two counties (See Appendix 2 page 219).

Non-human participants

Consideration was given to the potentially small number of human participants as in a traditional research study there would be questions on reliability, validity and generalisability. However, the term participant within this inquiry is opened up more widely as the human/non-human binary is blown apart. Although there were four human participants (Early Years Teachers) directly involved in aspects of the inquiry, taking a case study/event approach allowed me to consider wider human participants (other members of staff and children) and non-human participants (classroom spaces, material resources, garden spaces, wild spaces). In these way, the human and non-human relations and affect generated from these could be considered. The different nature of the human and non-human participants is reflected in the data analysis in chapters three and four. In some cases data analysed explores Early Years Teachers in relations with non-humans and in others Early Years Teachers in relations with the children and other teachers in the setting.

Challenges of selecting human participants

Due to my previous employment position, I was aware that the human participants would be known to me which could have caused ethical concerns and potential for bias and a contamination of the data generation. Holmes debates cannibalism and contamination within educational research and how the researcher is in a ‘hybrid contamination’ (2014a: 10) with participants, methods, data generation, and (re)presentation of analysis. Furthermore, Deleuze (1993) used the fold as a figuration for the intensive qualities of space, with spatiality being continuously created allowing for productive interactions within assemblages, Reflecting on Deleuze (1993), I rework space and time as part of a wider folding and unfolding with each of my four case study/events/human participants on a different fold. In this way, I theorise that by being on a different fold they all inhabit a different space and time to each other and me which allowed me to mitigate against possible researcher bias and subject/object dualisms that might

¹¹ See introduction for more details on the settings, Teachers and children.

surround my relationships with them. Furthermore, I (re)considered my proposed conditions for validity and used reflexive meetings with my supervisory team to explore and unpack any potential bias and contamination that might have been generated. Additionally, I also engaged the participants in commenting on aspects of the data analysis and offering their own analysis of events and encounters. Massey (2005) considered the impact of mapping space and time and acknowledged that some maps seek to disrupt and trouble space – they disorient, de-familiarise, and provide a view from an unexpected angle. She argued that if we view space as a sphere of multiplicity and trajectory then places are not just points on a map but are integrations of space and time and are spatio-temporal events. This allows me to view space, place, and time for my visits to the settings as becoming-events which are part of the wider participant assemblage. With this in mind, and the debates surrounding validity (Lather, 1993; Koro-Ljungberg, 2010), and the aim of post-qualitative research as more than grand narratives and meaning making (Taylor and Hughes, 2016), I ensured I was attentive to the affect produced during the events to be open to wider human and more-than-human encounters.

Ethical considerations

Within this inquiry, I see ethics as part of the wider material-ethno-carto-graphic rhizome. Drawing on Taylor (2016a) I seek to include humans and non-humans in a wider ethic of care and will attend to this by ensuring non-humans are more than one side of a binary and are in relation to/with humans and other non-humans. As Bennett states ‘ethical responsibility of an individual human now resides in one’s responses to the assemblages in which one finds oneself participating in’ (2010: 37). In this inquiry I return to some of my judgements on research validity where I will ensure I am cognisant of Koro-Ljungberg’s (2010; 2016) researcher responsibility. This will allow me to consistently question my ontological decisions and be open to fluid approaches to methodology, participants, data, and analysis. In this way, I will attend to the human ethics and researcher responsibility with regards to accepted research practices, for example consent, anonymity, right to withdraw. Additionally, I will ensure that participants in this inquiry are drawn from both the human and non-human world. Furthermore, I will be conscious of the connectedness of humans and non-humans within assemblages and pay attention to ensure the flat ontology is considered with regards to data generation and subsequent analysis.

Traditional research ethics

Research ethics are the means to ensure no harm is enacted on the research participants. It is expected that researchers will follow clear ethical guidelines. For example, the British Educational Research Association guidelines (BERA, 2011) have been produced to ensure researchers follow key aspects such as informed consent, anonymity, freedom from misrepresentation and coercion. These tenets form the basis of my University research ethics policy which was employed as part of my own ethical approval (University of Chichester, 2014). The material-ethno-carto-graphy is concerned with revealing the more-than-human entanglement of Early Years Teachers with other humans and non-human. This has led to me to consider an ethical framing which attends to human and non-human participants within this inquiry.

Intensive Posthumans ethics

Braidotti sees ethics as a body's wider engagement with the potentia of life, she states 'It is an intensive ethics, based on the shared capacity of humans to feel empathy for, develop affinity with and hence enter in relation with other forces, entities, beings, waves of intensity' (2006b: 140). Lorraine (2011) concurs when she notes Deleuze and Guattari's notion of immanent ethics which is concerned with how a body might live in the now but also in becoming with other bodies. Furthermore, Koro-Ljungberg (2016) has suggested researcher responsibility as an approach to ethics. This view suggests a wider engagement with ethics and responsibility as more than duty but also as a commitment to resisting closure and allowing for irruptions and ruptures to be acknowledged. Additionally, she speaks of responsibility yet to come, calling for research to be open and mindful of future research practices and possibilities as yet unknown (Koro-Ljungberg, 2016).

Ethical connectivity

It can be questioned how an immanent, productive and connective life can connect with researchers' ethical requirements (BERA, 2011). Moreover, this research has been granted ethical approval by the University of Chichester ethics committee (University of Chichester, 2014) and relevant consent forms and information sheets have been approved (Appendix 1). Due to the nature of the visual data human participants were asked to complete a consent sheet and a visual media consent sheet which details what happened to the data during and after the

research. In all cases children's faces have been obscured in the resultant images to maintain confidentiality. This notion is in theoretical tension as Deleuzo-Guattarian (1987) ethics are principally concerned with creative commitments to maintaining and maximising connections to expand possibilities for life. Marks (2010) argued there is a clear distinction between ethics (of becoming) and morality (of human action). Furthermore, the role of researcher responsibilities within research practices is wider than good scholarly practice and philosophical discussions. As Koro-Ljungberg notes 'responsibility as envisioned by Derrida draws from ethical practices and actions, and it concerns itself with onto-epistemological stances towards the unknown and the Other' (2016: 118). However, I will blend the traditional accepted research ethics practices with the Posthuman ethics of connectivity.

Problematizing participants and voice in post-qualitative research

As part of the context for this inquiry I am considering a wider definition of the word 'participant'. In traditional research practices a participant is generally defined as 'a person who takes part in the research' (Braun and Clarke, 2013: 333), however, from a Posthumanist post-qualitative research perspective the term participant is less clear cut. Furthermore, it is important to consider ways to problematize the idea of 'giving voice' to 'participants' within the study in an attempt to break down binary dualisms associated with humans and non-human.

Problematizing voice

The notion of voice has been privileged within qualitative work as the means to explore participants' perceptions of the truth and their lived experiences. For example, in feminist research feminist standpoint theorists 'sought to give voice to the women who had been left out of mainstream research models by recognising women's life stories as valuable forms of knowledge' (Hesse-Bieber, 2014: 6). Similarly, narrative research considers the participant's social world of stories and how these are impacted on, and impact, readings of lived experience, power and oppression (Andrews *et al.*, 2013). In addition, the ethnographer becomes immersed within the lives of the participants and explores and analyses their social world paying significant regard to the spoken word (Atkinson, 2015). However, what all these approaches have in common is the agreement that voice is a problematic and troubling concept.

To resolve some of the challenges with voice researchers have sought to promote the authentic voice as a means to ensure that a single voice does not represent a single truth, Even though the polyvocal nature of voice has been considered, issues still remain when voice is unproblematized and researchers do not consider the power dynamics of giving voice (Jackson and Mazzei, 2009). Mazzei and Jackson (2009) consider how even though attempts are made to democratize voice researchers may not be transparent on ‘how decisions are made to ‘give voice:’ Who decides what ‘exact words’ should be used in accounts? Who was listened to and how were they listened to? How might the voices be distorted and fictionalized in the process of reinscription?’ (Mazzei and Jackson, 2009: 2). In these instances, exploring voice produce more questions than answers and it becomes clear that researchers should challenge the methodological and epistemological privileging of voice and consider how voice is ‘mediated, constrained, determined and even commodified’ (Mazzei and Jackson, 2009: 5).

Poststructural and Posthuman voice

There are a number of scholars who have taken up the challenge to question and problematize voice most notably from a poststructural context. Spivak (1988) critiqued colonial practices when she questioned how (research) practice can silence stratified groups as ‘the people – or subaltern – which in itself is a difference from the elite’ (Spivak, 1988: 27). Furthermore, Mazzei (2007) has deconstructed silence within interviews as more than an absent presence and theorised how silence can be read as meaningful and purposeful, a chance for researchers to explore more than what is heard. She proposed that the silent voice can be mapped by considering what occurs within/between the ‘cracks’ (Deleuze and Parnet, 1987a: 131) and that it is (in)(on) these limits that ‘a performance of voices in their multiple and tangled form’ (Mazzei, 2009: 54) can be heard. In her work, Lather (2009) questioned how the authentic voice is the cornerstone of ethnography and forms large part of the analytical framing. She used a range of strategies such as ‘shifting counter-voices and subtextual underwriting’ (Lather, 2009: 22) to challenge and rupture narrative and to move past presentation of a different voice. Additionally, Lather and St. Pierre (2013: 630) provocatively ask when they considered what they entitle ‘new’ methods of inquiry ‘Where/how do voices from post-humanist humans fit into the new inquiry? Are they *voices* after all?’ Jackson (2009) focussed on how research participants can take up contradictory subject positions when they shape interview transcripts after being given the opportunity to re-read and edit these transcripts. Finally, MacLure *et al.* (2010) also explore how silence can be seen as more than a resistance to analysis. New readings from their data enabled them to move past the notions of an authentic voice to one where silence can be seen as performative when they consider ‘The performance of silence draws its power, as

we have seen, from its ambivalent status and location – between sincerity and mockery, between the offering and the withholding of meaning’ (MacLure *et al.*, 2010: 498).

Voice without organs

More recently Mazzei (2013c, 2016) has further drawn on the work and concepts of Deleuze and Guattari to move on theorisations of voice. She uses the Deleuzo-Guattarian concept of the Body without Organs (BwO) (Deleuze and Guattari, 1983) to extend this to voice proposing a Voice without Organs (VwO) which produces a new conception of how agency and voice are distributed within an assemblage (Mazzei, 2013c). It is this departure which allows her to conceptualize a break with spoken and written words and intentional human agency to a VwO which sees the voice being thought through an assemblage. In this conceptualization, the interview becomes a trigger to a new assemblage as the human is decentred as part of the assemblage. She further asserts that linking the VwO to Deleuze’s interpretation of Bergson’s concept of duration (Deleuze, 1988) allowed for the notation of an ontological voice and a rethinking of the essentialist subject (Mazzei, 2016). These departures allow her to move the voice away from representational thinking to reveal flows and rhythms within and through the assemblage.

Assemblage and voice

The problematization of voice has led me to consider wider connections within the assemblage and how these can be revealed in more-than-human ways, questioning who the participants are within my work. Bennett (2016: 58) encourages researchers to consider how to engage more deeply with non-sentient objects in ways that detach investigations from human positioning. This presents a call for a greater attention to the non-human and more-than-human elements within an inquiry that moves beyond the concept of prosopopoeia (where the human speaks for material world). The notion of the ‘world with us’ is presented by Bennett (2016: 67) as a means to link matter and the human world of education by acknowledging ‘a mild posthumanism which...wants us to notice the non-human realm more, and to understand our entanglement with it’. This approach is also considered by Ingold (2010), who cautions against creating wider binaries between humans and materiality where humans are considered separate from the matter that comprises the world, although paradoxically being made from said matter.

Assemblage and participants

Drawing on Bennett (2016) and Ingold (2010) I consider how the participants within this inquiry are constituted within and through assemblages. Here participants can be seen as bodies (corporeal and non-corporeal) which connect to each other as knotted confluences within and between assemblages. ‘Voice’ must be seen as bigger than the spoken word and acknowledge more than prosopopoeia to include the involvement of human and non-human participants. Within this conceptualization intensities, forces and flows all form part of the research assemblage (Deleuze and Guattari, 1984) and are in a continuous state of flux as connections are made, dropped and remade. The human and non-human bodies are affected and connected and the propositions for research (the reconceptualized methods) allow for a repetition of intensities during the virtual flow of interconnection and irruption. Here ‘voice’ is presented as distributed through interviews, observations, images, practitioner diaries and the researcher diary plugged into the researcher-data-analysis assemblage allowing for a ‘hub of connections and productions – it deterritorializes and presents the possibility for transformation, proliferation and becoming’ (Jackson and Mazzei, 2012: 88). Although I acknowledge that these methods are concomitant with traditional qualitative research I will argue they can be used to consider human and non-human entanglements which I have theorised in the next section.

Methods-as-affinity-groups

My methods proposition for this research inquiry is the reimagining of methods-as-affinity groups. I draw on the work of Nordstrom (2017) who considered her own doctoral research and how she needed to re-view methods to find the key to material relations. Furthermore, human affinity groups were used within a research-creation event detailed in *Thought in the Act* (Manning and Massumi, 2014) and a definition of affinity is ‘close connection or liking; close resemblance; chemical attraction’ (Collins, 1996). The human affinity group is normally a group with shared interests which manifests as a non-hierarchical and loosely organised collective working towards a shared goal. Methods-as-affinity-groups are techniques which cluster around and through the research-creation event and are processual and connective as technicities reveal the affective flows within and between bodies. Methods-as-affinity-groups are knotted and clot around intensities which are generated in the research-creation data event. Manning discussed the use of the hyphen (-) as an opportunity for exploring ‘interstitial modes of existence’ (2016: 11) and I take this forward as a means to reveal what happens between methods and participants and data, at the zone of indiscernibility. Methods-as-affinity-groups is more than the language-ness of language, meaning, and sense making which re-centres the human within the research

process. Methods-as-affinity-groups is concerned with the agitation, stretching, and aeration of research methods applied in qualitative research. Methods-as-affinity-groups becomes a technicity for (de)compo(s)(t)ing research practices as a (re)turning of the earthworm.

Methods (in)tension

Methods have been framed as a means to collect data and are influenced by methodological approaches (for example Braun and Clarke, 2013). However, Law (2004) challenges this assertion noting that the methods can become performative and a means to help reproduce certain realities. He argues methods are not innocent and concluded that if researchers acknowledge the messiness in their inquiry methods can detect, resonate with and amplify patterns of relations within and between inquiry (Law, 2004). This debate has been extended by scholars working in Posthuman, post-qualitative work have already questioned the form and shape of methodology (for example Taylor and Hughes, 2016; Snaza and Weaver, 2015a). Part of these problematizations extend to method where Taylor argues that researchers cannot/should not “‘adapt’ a familiar method to posthuman ends” (2016a): 18). Furthermore, St. Pierre (2016a) concurs and argues that traditional methods are too prescriptive and not concurrent for the work of the ‘posts’. She contends ‘new concepts and new conceptual practices’ (St. Pierre, 2016a: 34) are needed to reimage methodology and method which attends to Posthuman life and events. Springgay (2015) draws on the work of Massumi and Manning when she imagines her research as a set of techniques and propositions and concluded she was not convinced that new research practices were needed for doing research. Furthermore, Springgay and Truman (2017) propose that existing methods need not be refused and problematize that ‘new methods do not need to be invented’ (2017: 2). They argue that the central issue is how methods are used concluding that methods must be more than a means to gather data but should be energised towards entangled relations which are not procedural but generate ‘new modes of thinking-making-doing’ (Springgay and Truman, 2017: 9). I concur with Springgay (2015) when I argue ‘*new* methods may not be required but *what is* required is an openness to new ways of activating and thinking methods to explore the flows within and between assemblages’ (Fairchild, 2016b: 26 emphasis in original) and it is to activating thinking with methods that I now turn.

Propositions and techniques with methods

As noted I intend to employ the notions of propositions and techniques when conceptualizing methods-as-affinity-groups. The term propositions were coined by Manning and Massumi (2014) to consider how research can trigger and activate thinking-in-movement. This movement was more than the relative movement of the human, where bodies move in, but are separate from, inhabited space. Movement-in-thinking is absolute where connections and relationality occur between all bodies in the space with endless differentiations and becomings opening up new possibilities and experimentations (Manning, 2007). Movement becomes a political act and a point of departure for an activist philosophy where reimagining and generativity can appear. Furthermore, techniques become the means to activate movement-and-thinking, with these techniques built on habit and skill, which can be opened up to 'potential undoing' (Manning 2016: 125), as the habit/skill (method) is explored. She questioned how techniques can open fields of difference and that becoming-minoritarian/minor gesture is a means to reveal the technicities which show wider potentiality. As she noted, techniques are 'defined by the respective practices that tune a process, technicity is a set of enabling conditions that exact from technique the potential for the process to exceed its form' (Manning, 2016: 126).

Disrupting methods - methods-as-affinity-groups

As mentioned on page 60 post-qualitative work allows researchers to generate new conditions of possibility for inquiry. However, this can lead to the critique that these research/er freedoms promote inquiry which is directionless and has limited scope for revealing new ways of thinking life (Koro-Ljungberg, 2016). I have considered these discussions in a previous paper (Fairchild, 2016b) where I question whether data would have been generated in my inquiry without the needs for my wider intentions of my research design. To mitigate against this I have been mindful of the need for a set of propositions to provide a focus for this inquiry, these were developed to provide affirmative and generative ways to explore the wider material life of the Early Years Teacher (see page 2 – 3). The overarching propositions for this inquiry were 'explore affirmative more-than-human Early Years Teacher relations' and 'enact conditions to move beyond the dehumanised precarious feminised ECEC professional' and my methodology and methods have been developed to generate a response to this proposition. When reimagining relations in ECEC I was keen to note the ways in which Early Years Teachers, children and the material world of ECEC became enmeshed and I wanted to pay attention to the non-human elements of ECEC. My methodological proposition, the material-ethno-carto-graphy, was the means by which I intended to be aware of human and non-human relationality. In order to

disrupt and rupture the traditional ethnographic methods mobilised within this inquiry I set out to reveal materiality within the encounters from the outset. This was achieved by imaging methods-as-affinity-groups as a research assemblage where method becomes an affective ‘data collection machine’ (Fox and Alldred, 2017: 4) where micro-political engagement with method moves beyond solely the human subject and subjectivities. By working at the limits of method I acknowledge the vibrant nature of the more-than-human world during the data generation, and using a diffractive approach to analysis (see page 89) of the data generated to map the knotted relationality of these more-than-human entanglements. In this way the productions within the wider ECEC assemblages could be connected via the methods-as-affinity-groups to move beyond a solely human view of the world to one which encompasses its inter-related components.

Mobilising methods-as-affinity-groups

Springgay and Truman (2017) argue that the use of methods are (in)tension as methodocentrism produces expectations of data collection. When mobilising methods-as-affinity-groups I visited each of the case study/events three times over a six-month period. During these visits, I was able to engage with a range of what could be considered traditional qualitative research methods. Prior to my access to the field I had completed three pilot study semi-structured interviews (Mikuska, 2017). I realised that these would not be sufficient for revealing and generating knotted relations as desired in the methods-as-affinity-groups proposition; taking this into consideration multiple methods were adopted. These included broadly ethnographic participant observations which allowed me to explore human and more-than-human interactions revealing aspects of the material culture and artefacts in ECEC settings (Searle, 2012); the shortest being one hour and thirty minutes and the longest being four hours. In addition, I used semi-structured qualitative interviews which allowed me to gain understanding of the relational assemblages the Early Years Teachers were engaged in/on/through (Braun and Clarke, 2013); the interviews varied in length from forty-five minutes to one hour and thirty minutes. Furthermore, I employed visual methods, which included photographs of the material environments both indoors and outdoors (Rose, 2012). Participant diaries (Braun and Clarke, 2013) were kept by the human participants and Early Years Teachers were asked to note areas which affected them or stood out as critical incidents/happenings. The rationale for this was to facilitate discussions on more-than-human relations as a means to explore affect and materiality from the Early Years Teacher perspectives. Renold and Mellor (2013) see the use of participant diaries as a double-movement to promote the ethics of participation and to develop a wider understanding of

happenings. To complement the participant diaries, I kept my own field notes journal which allowed me to reflect on and analyse the visits I had made. Methods-as-affinity-groups work from the middle (Deleuze and Guattari, 1987) and as such move beyond the notion of ‘being there to report on what you find or what you seek, but to activate thought’ (Springgay and Truman, 2017: 4). It is in this way that I reveal the swarms of intensities within methods-as-affinity-groups and how they might be put to work in my inquiry and I will explore how this might be produced as I debate the methods employed.

Observations

Participant ethnographic observations can reveal how life proceeds in social contexts and can have its challenges with regards to going native or gaining superficial understanding of context depending on the position selected. In many cases the observer can flip between the positions of participant as observer and observer as participant as the research progresses (Seale, 2012). Furthermore, Renold and Mellor (2013) and Blaise (2013) both used observations as part of their multi-sensory ethnography engagement with their research. During my observations I made detailed notes of what was unfolding using a notebook and pencil. When I returned from the visit I transcribed these and started to annotate these observations with initial theorisations. Participants were invited to comment on these observations but only Rose chose to do this. In these instances I reflected on what the observations do and produce instead of only focussing on what meaning could be made from them. In this way, I used observations to draw attention to the material dimensions of the research particularly when I, as observer, and Rose, as co-researcher, set out to reveal attention to the material from the outset of the research inquiry.

Interviews

In ethnography interviews are used to elicit peoples accounts which can then be used in meaning making of the participants lives in particular contexts (Searle, 2012). These can be structured, semi-structured and un-structured and are normally transcribed before being analysed (for example Silverman, 2011). Posthuman researchers debate whether interviews can reveal affect and materiality (Kuntz and Presnall, 2012; Honan, 2014). Furthermore, different ways to consider the interview, for example as a confabulative conversation that disrupts the real and the possible (Johansson, 2016), or as a means to attune to objects (Adams and Thompson, 2016) have been proposed. Moreover, Lenz Taguchi (2012) notes how diffraction can be successfully deployed as an analytical strategy for interviews. These conceptualizations

allow me to question how interviews could be (de)compo(s)(t)ed and to debate whether the interview could be used to reveal the more-than-human connections. I argue that by problematizing the always already saturated meaning in voice (see previous discussion on pages 71-73) it is possible to pay attention to what is produced not just by the interview itself, but by a wider engagement with the materiality of the transcript as participants discuss their relations to the non-human world. Semi-structured interviews (Braun and Clarke, 2011) were selected to explore high level topics, however I was very open to the Early Years Teacher discussions and allowed the interview to proceed in a more organic way. The interviews were recorded using a small Sony Dictaphone and transcribed verbatim and were subject to close reading where an appreciation and openness to how materiality was sensed allowed the materiality to be revealed. Furthermore, by inviting human participants to respond on the event-encounters which were discussed in subsequent interviews, produced multiple readings of the events.

Images

The use of images within contemporary research is well documented (for example Rose, 2012) and the nature of images as means of representation has been considered and critiqued with the visual content being seen to constitute data (Pink, 2007). Employing images is not neutral work and Kind (2013) reflects on the colonial nature of photography and the violence of terms such as capturing images and photo shoots. She suggests a more haptic engagement with images to reveal movement and affect. Furthermore, Haraway detailed 'there is no unmediated photograph or passive camera obscura in scientific accounts of bodies and machines; there are only highly specific visual possibilities each with a wonderfully detailed, active, partial way of organising worlds' (1991: 190). Images have been used in Posthuman research to reveal haptic encounters of childhood (Otterstad and Waterhouse, 2015), to note how images of (no)thing can reveal materiality (Allen, 2016) and to encourage a move away from employing images for meaning making (Deleuze, 2005a; Deleuze, 2005b; Hultman and Lenz Taguchi, 2010). I draw on Ainsworth (2014), who notes how cameras and images are agential. My images were taken on a small Canon Ixus digital camera, however at one visit I also needed to use my Samsung phone as the camera memory card had become full. As I took and used the images I wondered what worlds were activated when we are affected by an image. In this inquiry I used the image as a tool to document some of the material and spatial arrangements I was part of. I am mindful of the power of the image taker, however have employed images to support the data analysed in this thesis. I also considered if images released the potentia of other materials, I do not analyse

the meaning of the images but use them as provocations that are potentially agentic and relational to the event-encounters.

Participant diaries

Research participant diaries are a tool to engage democracy within research inquiry. These are used to support the collection of rich data and also to provide a collaborative input into the data analysis by the research participants as an attempt to circumvent researcher power over data used and analysis made (Searle, 2012; Braun and Clarke, 2013). Furthermore, journals kept by researchers are encouraged particularly as part of a doctoral research project to allow for both reflection and reflexivity on the research and the doctoral process (see Thomson, 2017). However, even though Barad (2003) argues language is a powerful cultural marker we must acknowledge the importance of human language to transmit thoughts/ideas. Scholars have argued that authors of texts are not the only ones involved in its production (Nordstrom, 2015) and I note this not only in the use of diaries but in the production of this thesis. Moreover, Jones and Hoskins (2016) discuss how Western language is saturated with subject: object binaries and argue more Indigenous ways of exploring wiring can reveal wider materialities.¹² I provided four identical books, one for each participant, with a note to ask them to record any thoughts on my visits or critical incidents that presented during the project. Only Hannah and Rose wrote in the diaries and I took copies of these and returned the original diary to them. Sarah sent me her diaries electronically on a word document via email and Claire chose not to provide further reflections. As I explored the participant and researcher diaries I considered whether textual presentations can reveal the human decentred from their identity. It is a challenge to conceptualize the decentred human in text, as I note from my own research journal ‘how can/does language reveal thing-power? When we all speak a language, we all make it discursive!’. However, what I have paid attention to is the moments where material engagements were revealed and concur with Bennett that diaries can ‘enable us to consult non-humans more closely’ (Bennett, 2010: 108). The participant and researcher diaries were used as a means to explore materiality and more-than-human entanglement. The doubled effect of these diaries was to encourage wider participation from both human and material participants.

¹² The tā moko is a Maori facial tattoo. In Jones and Hoskins’ (2016) work the tā moko of Hongi Hika, a Maori leader, was used as a signature on a land deed and was theorised as more than just a mark on paper but a figuration of vitality and Maori culture. Although this could appear cultural appropriation and neo-colonisation of Maori heritage it is important to note that Dr. Te Kawehau Hoskins is a Maori researcher and scholar.

Reimagining methods

I use methods-as-affinity-groups as a means to consider ways to reimage traditional methods as a more-than-human relation which helps to explore engagements between Early Years Teachers and non-humans. They are a tool to see things differently and to activate the anarchive from the archive in the same way the images below are presented (correct orientation and reversed negative orientation):

Figure 2 Branches (correct orientation and reversed negative)



Data as a desiring machine

Methods-as-affinity-groups were the means to generate data for this inquiry, however, I was left wondering what ‘data’ would be presented to me during the field work. Data has long been the stable bedrock of empirical inquiry with textbooks turned over to the variety of methods which elicit the collection of data (for example - Cohen *et al.* 2011; Punch, 2011). In addition, there is a body of work which is solely concerned with ways to analyse, categorise and represent data (for example – Silverman, 2011). I was left considering a number of points, such as ‘What is data? What does data feel about these books descriptions? Does data want to be represented, coded and classified?’ These questions have also been considered by Posthumanist scholars who have/are sought/see(k)ing ways to view, engage and become entangled with data. I have drawn on Deleuze and Guattari (1987) when I have considered my engagement with data and I see the generation of data as working in the middle. In the middle is where the action is, becoming-with-data, it is within this middle that researchers can problematize and wonder what might data want (Koro-Ljungberg, 2016).

St. Pierre's (1997) germinal work 'Methodology in the Fold' started to consider a notion of more-than data which transgressed subjectivities. Since this piece scholars have been problematizing both the term and the 'thing' of data. For example, Koro-Ljungberg and MacLure (2013) question the term data, noting it/data does not neatly fit with post-qualitative work. Furthermore, Denzin (2013) argued traditional notions of data may not be required in a post-positivist world and Brinkman (2014: 4) noted that researchers 'stumble' over data in inquiry as unexpected moments. Moreover, Benozzo *et al.* (2013) stated data can be seen as splinters or nuisances and MacLure (2013a) asked us to develop a capacity to wonder at data and open our eyes to the potentiality of the less-than-obvious which can trouble our thinking. These views are shared by Holmes (2014a; 2014b) and Holmes and Jones (2013) who consider the (de)composition of data and its analysis that leaves its mark on the researcher co-mingling and lingering causing a constant (re)visiting and (re)imagining of the research.

Within the fluid methodological spaces which activate movement-in-thinking I draw on Koro-Ljungberg's words:

What could happen if qualitative researchers were to shift their focus from acting on, manipulating, or analysing data to data's working on the researchers themselves or taking the initiative? (Koro-Ljungberg, 2016: 54).

Data in my inquiry involves spoken data, textual data, image data, transgressive data (feelings, scents, visions), objects-as-data, spaces-as-data, and how these spaces are used as data. Furthermore, using wider figurations on data I could have included data as data collection implements, such as pencil and paper, camera and Dictaphone. The list could have become even more expansive, however, I had to be cognisant that this inquiry might become unmanageable if I had included everything as data. I note Haraway's comment 'We are all compost' (2015: 161) seeing the 'we' in this statement as expansive includes all bodies and how they might live, including data-as-body. I theorise the researcher-as-earthworm turning and returning the data-as-compost as the co-relational elements of the methods-as-affinity-groups (de)compo(s)(t)ing, knotting and clotting in the process of producing things which occur within encounters.

Analysing glow data

As detailed in the introduction my work serves as a disruption to evidence based ECEC research, policy and practice which seeks to privilege human experiences and posits ECEC as an intervention to prepare children in a linear fashion for school, employment and future life. The data explored within this inquiry will be used to develop the methodological project of

becoming-professional where, moving beyond the discursive, it seeks to disrupt the nature-culture mind-body divide being open to the wider possibilities of the world. Exploring encounters within and between Early Years Teacher assemblages will allow me to consider what kind of relations are being set up, dropped, and remade. Furthermore, I will experiment with (what)(how) Early Years Teachers engage with, and are affected by, these relations within the process of becoming-professional. It is not my intention to fix and reify knowledge or to name the Early Years Teacher assemblage components (St. Pierre, 2016b) but to explore the productive relationships which occur with and between the semiotic and the material relations that form an assemblage. When tracing human and material flows researchers can consider how these might ‘speak’ to the observer. Bennett (2010: xiv) encouraged researchers to mobilize ‘cultivated, patient, sensory attentiveness to non-human forces’ and to be open to ‘thing power’ to ensure possibilities are not foreclosed. The researcher-as-earthworm allows data entanglements with the more-than-human to be revealed as the research process folds and unfolds revealing disruption, aerations, and (de)compo(s)(t)ing of data.

Data generation

The data for this project was gathered/collected/found during a sustained engagement with/in four Early Years Teachers case study/events over a period of six months. I visited each Early Years Teacher three times over this period. These visits generated 12 sets of interview transcripts, plus 12 sets of observations. In addition there was the images taken during the 12 visits, and in some cases provided by the setting plus a copy of the participant (and my researcher) diary. After collecting 4 A4 folders of data, I was overwhelmed as to how this might be analysed. Although, I had been reviewing the interview transcripts and interviews/observations as I transcribed these and from here I started to sense the potential glow data.

Initial mappings

My next step was to investigate each case study/event by Teacher, this commenced by collating the data from each Early Years Teacher and starting to explore the wider knots, ties and connection within and between it. I felt the only way to start to con(text)(cept)ualize this data was to produce physical maps/charts following the sensing of the data. These maps/chart were proposed to detail the interconnections between the intensities generated by the different

methods used to reveal the data. Each method was employed to expose repetitions and what happened/was produced within and by these repetitions. I have entitled the preliminary artefacts maps/chart as they were a pictorial way for me to present the data, a way for me to consider the data I had and how data might affect me (Duke Writing Studio, n.d.). As Deleuze and Guattari (1987: 3) state 'writing has nothing to do with signifying. It has to do with surveying, mapping, even realms that are yet to come' and these maps/charts were an entry point to a rhizome of Early Years Teacher entanglements.

Sensing glow data

Once the maps/charts were complete (see figure 3) I was able to read these both literally (in a linear fashion) and diffractively (reading each occurrence through other occurrences). It was during these readings that I became conscious of what MacLure (2010) entitled glow data. In her paper of 2010 MacLure noted glow data as follows:

[S]ome detail – a fieldnote fragment or video image – starts to glimmer, gathering our attention. Things both slow down and speed up at this point. On the one hand, the detail arrests the listless traverse of our attention across the surface of the screen or page that holds the data, intensifying our gaze and making us pause to burrow inside it, mining it for meaning. On the other hand, connections start to fire up: the conversation gets faster and more animated as we begin to recall other incidents and details in the project classrooms, our own childhood experiences, films or artwork that we have seen, articles that we have read. And it is worth noting in passing that there is an affective component (in the Deleuzian sense) to this emergence of the example. The shifting speeds and intensities of engagement with the example do not just prompt thought, but also generate sensations resonating in the body as well as the brain – frissons of excitement, energy, laughter, silliness. (MacLure, 2010, p. 282).

I am aware of the length of this quote and did wonder if I should have paraphrased it, however, it (the quote and the affective nature of glow data) drew me in as I read my own data and I was mindful of the affect the data had on me and me on it. MacLure revisited her affective feelings on glow data where she considered (based on her own reading of *A Logic of Sense*, Deleuze, 1990) that perhaps glow data is sense making in encounter with data (MacLure, 2013c). Here MacLure (2013c) suggested attending to glow data allowed researchers to resist the urge to code, represent and interpret data and to give ways to highlight affective responses to relationality in data. From this glow data mind maps (see figure 3) I was able to try and consider how the components within the assemblages revealed potential sites of knotted confluences

and employing themes serves only to take a macro view of the world which mirrors and reproduces knowledge rather than producing new insights.

Enacting a Posthuman data analysis

This leads me to consider how my Posthuman data analysis might be enacted which allows for working at the limits to produce an opening up to both a human and material engagement with the ECEC landscape. I draw on previous work which pays attention to affect and materiality in analysis (for example Ringrose and Coleman, 2013; Lenz Taguchi and Palmer, 2014). By employing the principals of cartography more-than-human connections can be mapped (Martin and Kamberelis, 2013); rhizomatic relations can become revealed (for examples of these types of analysis please see: Sandvik, 2010; Holmes, 2014a, 2014b; Holbrook and Pourchier, 2014; Osgood & Scarlet/Giugni, 2015a, 2015b; Otterstad and Waterhouse, 2015; Sellars, 2013; 2015); and the absent present and desiring silences can be explored (MacLure *et al.*, 2010; Mazzei, 2013a; 2013b). Posthuman researchers need to be open to the “‘Potentia” of posthuman research practices’ (Taylor, 2016a:19) and it is also important to be mindful of data which is present but may remain un-noticed during field work. Attention to these additional elements could set in motion a ‘cacophonous ecology’ (Manning and Massumi, 2014; viii) of bodies, concepts, objects, materialities, affect, sensations, movement, and forces.

Analysis of ‘data encounters’

I have conceptualized the analysis in this thesis as a ‘data encounter’ where I read theory (through)(with) the data. Chapters four and five are entitled ‘Data Encounters’ and, as such, I discuss my rationale for using the term ‘encounters’. Initially one might question why the term encounters was/has been used. It could potentially indicate a loaded conceptualization of a meeting place, Wilson (2016) suggested that term ‘encounter’, within the context of human geography, has multiple meanings and significance depending on the terms historical and social usage. This view was echoed previously by Massey (2005) who noted that encounter-space is always under construction and is a product of a multiplicity of encounters, here spaces affect encounters and encounters shape spaces. Furthermore, in the field of ECEC Pacini-Ketchabaw *et al.* (2016) have proposed the encounter as an event which moves past meaning making to produce new models of professional practice with a more material engagement. The definition of the term ‘encounter’ has not gone unchallenged and Wilson (2016) problematized how historical and social boundaries can set limitations for the encounter to be analysed and

theorised. Furthermore, the notion of the bodies within the encounter need to be rethought (Abrahamsson and Simpson, 2011) to reveal what Bennett (2001) calls sites of enchantment which can offer a different view on human, non-human and more-than-human encounters. Encounters can be temporary and momentary but that our own pre-inscribed perspective may influence how we engage with them (Wilson, 2016). However, even though encounters may be fleeting and momentary they can have lasting affects/effects. Anderson has argued that ‘capacities have been formed through past encounters, that repeat, with variation, in the habits, repertoires and dispositions of bodies’ (2014a: 562).

The absolute and relative movement of these encounters can reveal becoming and being respectively (Manning, 2007). As Massumi (2002) contended we cannot predict what might be produced between bodies-movements-encounters as we have no *a-priori* knowledge of what bodies might be capable of. Furthermore, movement-encounters as meeting places are ‘situated in each encounter’s situatedness’ (Pacini-Ketchabaw *et al.*, 2016:1) reveal collective relational experiences as opposed to an individual experience. As Wilson argues ‘encounters also make a difference...encounters register as events that are in some way worthy of note: as events that shift in sensory perception’ (2016: 8 emphasis in original). Drawing on these theorisations of encounters I (re)image the encounters-with-data as multiplicity. These encounters include connectivity and relatedness, temporality and micro-politics, surprise and becoming, movement-in-thinking and newness. The encounter as a tool for thinking difference allows for contestation and working in the middle (Deleuze and Guattari, 1987) of data and what is produced within the co-relational entanglements.

Early Years Teacher cartographic ruptures

As the encounters-with-data were sensed and knots within and between the glow data were explored I was drawn back to the literature explored in chapter two (Early Years Cartography pages 23 – 50). Part of my analytical considerations were to attend to the substantive literature which charts the development of the Early Years Teacher (see pages 23 - 50) and to consider my initial research propositions which were ‘explore affirmative more-than-human Early Years Teacher relations’ and ‘enact conditions to move beyond the dehumanised precarious feminised ECEC professional’. I use the term ‘analyse’ cautiously as I am aware of the way terms can become labels to fix meaning (Massumi, 2015). Furthermore, Koro-Ljungberg (2016: 12) notes that ‘labels matter, since they serve as epistemological markers, ontological reference points and personal preferences...used to legitimize one’s scholarship’. In this thesis, I have tried to use

terms under caution although I am conscious of the methodological umbra (Fairchild, 2016b) which blurs the borders of qualitative/post-qualitative work producing and troubling all aspects of inquiry. Perhaps the term/concept ‘analyse’ in this thesis should be more closely related to my relational entanglement with data as becoming-with-data and diffraction collide.

In my consideration of the substantive literature I wanted to push the boundaries of language and consider how to make language stutter (Deleuze, 1997). I was also cognisant with the notion of the rupture (Deleuze and Guattari, 1987) and wanted to put this to work within the encounters detailed in chapters four and five. By enacting this type of methodological ruptures I aimed to explore the affective and micro-political nature of early years teaching. As Massumi notes ‘politics approached affectively is an art of emitting the interruptive signs of triggering the cues, that attune bodies while activating their capacities differently’ (2015: 56). The inclusion of these methodological ruptures have been placed within brackets as part of the diffractive analysis in chapters four and five (see page 101 and page 154 as an example). These ruptures help to build the conceptualisation of the fluid positions of early years teaching that I develop within this thesis, those of becoming-professional and being teacher. These ruptures are an actualization of being-teacher as they return to the policy and expected professional practice narratives of chapter two which seek to fix and reify particular notions of teaching experiences. I employ them as a means to jar and trouble the data encounters which explore the more-than-human engagements developed within chapters four and five. Furthermore, this leads me to consider how the data encounters produce new productions of Early Years Teacher distributed subjectivities which moves beyond these more human-centred views of early years teaching.

Diffraction as analysis

I have explored the notion of diffraction as a means to reveal and analyse aspects of the encounters. Mazzei ponders the data-diffraction dynamic when she suggests ‘a diffractive reading of data...moves qualitative analysis away from habitual normative readings (e.g., coding) toward a diffractive reading that spreads thought and meaning in unpredictable and productive emergences’ (2014: 742). The term ‘diffraction’ was first coined by Haraway as she explored the foundations of feminist research (Van der Tuin, 2014). Haraway saw diffraction as a means to explore how ‘interference patterns can make a difference in how meanings are made and lived’ (1997:14) which she applied to bodies to produce a diffractive reading to disrupt hegemonic gender positioning (for example, her readings of goddess and cyborg to disrupt gender norms). Barad (2007) also introduced diffraction when she linked diffraction as both and object and a methodology of/for inquiry. Here a diffractive reading strengthened and confirmed

the connections which were always already present in inquiry which then attended to the relational nature of difference. Mazzei (2014) concurred when she suggested that knowing is never done in isolation and that a confluence of forces is always working within/between knowledge in inquiry. Furthermore, Van der Tuin (2014: 235) noted that ‘diffraction is a tool that makes explicit the destabilization of the dis-embodied subject position of the scientist and critical student of science alike’. What all agree is that diffraction allows for the exploration of difference (c.f. Deleuzian difference, 1994) and Haraway details that diffractions makes ‘a mapping of interference, not of replication, reflection, or reproduction’ (1992: 70).

Using diffraction to explore data encounters Lenz Taguchi (2012) encouraged researchers to rethink the very act of thinking moving beyond the notions of reflection and interpretation. However, she considers how data is always touched by the researcher who is part of the data-production (Lenz Taguchi, 2012). As previously explored the challenge of post-qualitative data collection (revelation, stumbling upon, enacting with data) tends to reveal a propensity for interviews as a means to collect/find data (page 78). I have problematized the notion of voice (ostensibly the human voice) and as Mazzei and Jackson suggest ‘voice makes present the truth and *reflects* the meaning of an experience’ (2009: 4 emphasis in original) (page 71 - 72). I am aware that much of my data comes from interviews with the Early Years Teachers and by using diffractive analysis I have attempted to move away from what Lenz Taguchi (2012) might describe as interviews for sense-making where the voices speak for themselves. By seeing the interviews as partial and incomplete I have employed diffraction on/with my data to reveal becomings and difference. I hope by activating this kind of movement I can explore Early Years Teacher relational entanglements and break open data to decentre and move away from representation.

Continuation

This chapter has become an opportunity for me to be engaged in an anarchival relay which I have entitled earthworm methodologies and to explore the proposition ‘create generative post-qualitative inquiry’. The metaphor of the earthworm (re)turning with/in the methodological dance has been used to support thinking-in-movement. The work of SenseLab (2016) has also offered a provocation to think about research in new and generative ways via the concepts of research-creation, archive, and anarchival. It is with these in mind that the material-ethno-cartography and methods-as-affinity-groups have been born/spawned as propositions, techniques and technicities (Manning and Massumi, 2014; Manning, 2016) to act/do/think methodology and

methods in different ways. Building on the work of anthropology and ethnography I see the material-ethno-carto-graphy and the methods-as-affinity-groups as a means to diffractively employ becoming-minoritarian/minor gesture within this inquiry to move towards a more material entanglement of Early Years Teacher relations-in-the-world. I am conscious of the scholars working with Indigenous peoples who already have an insight into the decentred human. I do not seek to misappropriate these ontologies, research practices, and knowledges. I wish to acknowledge this work and these manners of thinking/feeling/knowing life as they have influenced my own ontological and analytic thinking. I also accept it could be argued that a Posthuman data analysis could be seen as a replacement for thematic representation and grand narratives and I have been troubled as to how a Posthuman data analysis might be enacted. However, what I have tried to encompass is a constant critical reference to theoretical underpinnings in an attempt to foreground my ontological position. By constantly questioning my rationale for this inquiry I hope to generate different ways to entangle with inquiry, materiality, and Early Years Teachers.

Researcher as part of material-ethno-carto-graphy

As the research inquiry folds and unfolds I note that I am part of the research assemblage as affect flows within and between all aspects of this inquiry. From the development of the methodological undertaking, to an immersion in the data generation, to the selection of the glow data. Moreover, the data generated was produced by both human and non-human actors as researcher and camera are in relations when images were captured, and researcher and pencils scribed the observations, to researchers and Dictaphones and transcripts as part of the interview process. This also extends to the data selected as I, the researcher, pour over images, interview transcripts, observation notes and diaries with the affective nature of the glow data revealing the data selected. These entanglements and meanderings are researcher/research encounters and are not value free, they are laden with potential bias and influence. I consider, in supervisory discussions, whether I have contaminated the data in the process of research even within the fluid nature of post-qualitative work. I conclude that the contamination is a two way process as we (researcher and research) are both living bodies which affect and are affected by the more-than-human relations we share.

As part of the material-ethno-carto-graphy and methods-as-affinity-groups I have considered becoming, minoritarian and my reflexivity-as-earthworm within the research process being cognisant with the move to an immanent philosophy as advocated by Deleuze and Guattari (1987) where human reflection, reflexivity and intentionality play a limited part in

wider connectivity. The components within this chapter have been a co-relational engagement with inquiry, breaking apart binaries and philosophy and I have engaged with thinking/acting-in-movement. Clarke and Parsons (2013) argue that rhizomatic researchers are nomadic in their research practices and are part of the relational research assemblage. Being aware of affective flows, difference, and breaking apart binary opposites can allow a move away from representational thinking and an openness to data generation/affects/flows which may be hidden or not always fully seen. In this chapter I have employed a range of concepts which have built on my previous work on the research umbra (Fairchild, 2016a; 2016b). This has allowed me to explore, problematize, disrupt, aerate and challenge my ontological and methodological assumptions resulting in the material-ethno-carto-graphy and methods-as-affinity-groups. The next chapter explores the development of ECEC policy, research and practice and the affect this has had on Early Years Teachers.

CHAPTER FOUR:

DATA ENCOUNTERS – ENTANGLEMENTS WITH SPACES

What would happen if we let go of some of our most prominent models of education, and outmoded models of mind, of humans, of relations, of being-with, of collectivity, of the world?...what conversation would happen?

Andrew Murphie (2016c: 55).

Introduction

In this chapter I build on the notions of becoming-professional and being-teacher as an enactment of policy and expected professional practice. Working with the proposition ‘practice entangling with Early Years Teacher assemblages’ I explore sites of becoming-minoritarian to reveal more relational entanglements with the material world. Furthermore, I employ the metaphor of the earthworm as a means to disrupt traditional views of the human subject. These earthworm entanglements are revealed as moments of becoming. Moreover, I draw on Ahmed (2010) who considers how bodies impact on each other and take shape by being oriented in certain ways towards each other. She details that this orientation is experienced in a co-habitation of space. Furthermore, when bodies perform repetitions they take the shape of these repetitions and this repetition ‘*orients the body in some ways rather than others*’ (Ahmed, 2010: 247 emphasis in original). Sensing the data it became apparent that a number of key areas emerged and glowed and these have been seen as components/parts of wider ECEC assemblages. These areas include a range of spaces (for example, classroom, outdoor spaces etc.) and the affective responses to technological, material and natural worlds.

Employing the archive/anarchive

This and the following chapters consider the paradoxical archive/anarchive (SenseLab, 2016) relationship. They are co-implicated with the data generated as part of the material-ethno-cartography and the affect which flows through ECEC assemblages. The cartographic connections within/between data, participants, and researcher can produce seemingly segmented knowledge,

the archive, which could appear similar to inductive and thematic analysis. However, the analysis within these chapters takes a micro-political (re)turn and like the earthworm reveals instances of becoming-minoritarian/minor gesture where material and affective entanglements are exposed. The revelations of the subtle balance of flows and intensities in ECEC work brush past and thorough the institutional meta-narratives of policy and professional practice.

Encounters with space

This first chapter will explore ECEC spaces using Deleuzo-Guattarian (1987) concepts of smooth space, striated space and territories. Within these spaces the entanglement of human and non-human provide generative ways to con(cept)(text)ualized happenings. During the sensing of the data ECEC spaces affected me, I am mindful that spaces are detailed in the EYFS and have been noted in research as markers of quality practice (for example Taggart *et al.*, 2015), or a pedagogical device (Rinaldi, 2006). Furthermore, I argue the materiality of the ECEC environment is particularly pertinent when putting Posthuman theorising to work as a play-based pedagogy uses objects, spaces and the environments as enablers of learning (DfE, 2013d). I will also argue that spaces and objects display their own agency on humans and non-humans positioned (in)(through) the spaces explored. When I discuss agency it is important to reimage agency as a more-than-human concept. My theorisation of agency in this and the following chapter is drawn from the work of Bennett (2010) and Barad (2007) where the influence of the non-human/materials is seen as diffracted and affective through wider classroom ECEC assemblages which in turn produce changes in human and non-human relations to reveal different ways of acting/thinking/doing relations-in-the-world.

Presentation of encounters

The (an)archives detailed in this chapter have been ordered as scaled encounters. These encounters are more than just containers of space and action where life occurs, they are networked and relational. The analysis moves within a range of territories through indoor space focussing initially on classrooms and the material objects contained therein, to homes as part of childminding practice. Outdoor spaces are the second focus from the more segmented and stratified nursery/home garden to more open spaces of forest/beach/dragon tree. The encounters have been ordered in this way as a codex (Murphie, 2016c) where subheadings reflect the spaces explored. These allow for an organization of potentia where affect and movement can be sensed. In this chapter I debate and explore the interplay between smooth and striated spaces

which are in a dialogue between human and more-than-human entanglements. Furthermore, I have employed diffracted readings to provide relays to activate the (an)archive. Methods-as-affinity-groups have generated data for this inquiry some of which are presented in this (and the following) chapter. The images used within this thesis are not provided as a ‘god’s-eye’ representation but rather as a provocation to engage with the selected glow data and the theorypractice analysis. Although these data are considered as separate sections (territories) within this chapter, by physical space and by individual teacher, it is important to notice the relational aspects of each section. The assemblages contained within this chapter are rhizomatic in as much as they reflect different entry and exit points to/from the rhizome(s) which are connected spatially, temporally and relationally. This means there will be overlap between data encounters explored which may be highlighted during the analysis or become apparent to the reader as they explore the presentation of these spaces. It can always be a challenge when writing with theory to avoid over-coded and segmented thinking, and at points in this chapter inevitably this may happen. An attention to the earthworm (re)turning the data-concepts can release the anarchival potential. Moreover, diffractive moments were generated during and after sensing the data which have been presented as non-linear imaginings of Early Years Teacher relations-in-the-world. These analytical splinters are lines of flight moving within/through the thresholds of ECEC to generate new readings of Early Years Teacher more-than-human entanglements.

Indoor Spaces

Territories

The traditional notion of a territory is a space which is delimited by fixed borders, this conceptual device separates and delineates the identity of a space/place (Aurora, 2014). Alternatively, a territory could be a geopolitical tool which details the space/place governed by a political or unitary entity (Wilson, 2016). For Deleuze and Guattari (1987) a territory is concerned with the resistance to grand narratives of identity and a delineation of space and place where becomings and transformations occur. As Grosz details, the unpredictable territory is formed when components ‘have their own resonances, their own forms of repetition and reconstruction; territory is the spatiotemporal configuration and containment of these rhythms and forces’ (2008b: 20). The concept of the territory can be deployed in a manifold of different constructs (Massey, 2005), but it could signify an identity (although not necessarily a human identity) as the ‘self’ is brought together from components of milieu (Bennett, 2010). Movement

within and between territories set in place a deterritorialization, a schizoid loss of identity through which difference can be revealed taking the territory to new directions/dimensions. In some cases, a compensatory reterritorialization will occur which moves the territory on again, never returning to same but to a newly formed collection of relations in a new territory. This process is not fixed or directional but unpredictable and random as life collides in unexpected ways.

EYFS assemblages

It became clear from sensing the data that the EYFS as territorial assemblage sought to striate the space within ECEC settings following the premise of learning through play and the promotion of ‘*areas of leaning and development* which must shape activities and experiences (*educational programmes*) for children in all early years settings’ (DfE, 2014a: 5 emphasis in original). Furthermore, the Teachers’ Standards (Early Years), encourage Early Years Teachers to ‘establish and sustain a safe and stimulating environment where children feel confident and are able to learn and develop’ (DfE, 2013d: 2). These documents produce an always already embodied expectation which territorialize the space as a learning environment to engage children in the purpose of learning and development. The double articulation of these policies can be seen in the molar segments of the learning needs of the child and how the teacher should provide environments to facilitate this learning (which I entitle being-teacher). In each of the spaces and encounters described below it becomes apparent how the embodiment of policy is entwined into the contexts in which the teacher’s work and produces different but similar aspects of striated space. Lines of flight and becoming-minoritarian/minor gesture (which I entitle becoming-professional) have also been highlighted where the fragility of the striated space is revealed. Molecular movements to smooth spaces become visible in diverse ways as becoming-professional allows the Early Years Teacher to take the space to different places.

Segmentarity, smooth and striated spaces

Segmentarity can be resisted by smooth space (also known as nomad space) which is the space within which intensive processes and assemblages are expressed. In chapter two (page 23 - 50) I noted how more suppler segments can provide different enactments of policy for Early Years Teachers. Furthermore, smooth space disappears when over-coded and as it is immanent it is uncontrollable. Deleuze and Guattari (1987) consider how smooth space can be surrounded by striated space, which is a stable system and a product of segmentation and stratification (for

example, by the State), and vice versa. They debate ‘smooth space is constantly being translated, transversed by striated space; striated space is constantly being reversed, returned to smooth space’ (Deleuze and Guattari, 1987: 552). Deleuze and Guattari (1987) go on to detail new ephemeral smooth space has no memory can only ever hold micro-histories, micro-sociology and micro-politics, which allows it to be a site for transformation and possibility. In chapter two (pages 23 - 50) I suggest how the positions of becoming-professional and being-teacher could prevent or develop smoother (suppler) or striated (rigid) modes of segmentarity. This can be exemplified in theory as Deleuze and Guattari were particularly interested in the tensions between smooth and striated space when they considered ‘how the forces at work within the space continually striate it, and how in the course of its striation it develops other forces and emits new smooth spaces’ (1987: 581).

As previously mentioned Noys (2010) has explored how the work of Deleuze and Deleuze and Guattari is consonant with capitalism as both segmentarity and their work on spaces and territories reflect this consonance (page 27). Striated space produces a more segmented society with this mechanism being termed molar (Deleuze and Guattari, 1987). Within these systems molar apparatus and striated space give rise to a stability which is required for the social world to function. However, Deleuze and Guattari (1987) considered that all aspects of life are in constant motion and movement which reveals the production of the molecular, where life becomes more fluid and ephemeral. The resultant lines of flight are connections which move life in new directions reflecting Deleuze’s image of tiny things and the impact they have (Conley, 2010a), Lines of flight are also entitled lines of becoming (Deleuze and Guattari, 1987) which reveal smoother spaces where connections of becoming-minoritarian/minor gesture are seen as micro-political acts which seek to trouble normative ideas and it is to this I now turn.

Classrooms

This section will consider what might be produced in ECEC classrooms with regards to smooth and striated space, connections and relations within and between assemblages. I will demonstrate that classrooms have their own agency, which is distributed across spaces, humans and non-humans. This agency and the enactment of practice can produce striations not only to the physical space but to the actions which occur in the classrooms. The affect generated by the agentic living classroom produces intensities which can set the boundaries for human and non-

human actants¹³ and can resist attempts for space to be smoothed. In some cases, non-humans are precursors for lines of flight and in others humans are the instigators.

School classrooms as agentic territorial assemblages

Classroom zoning and the EYFS

Classrooms form part of an agentic assemblage which includes relations and affect within and between classroom spaces, materials and objects, children and Early Years Teachers. Hannah's was a Reception classroom (4-5 year olds) within an all-girls private school where the affective nature of the school permeated the reception class room. Hannah described the classroom as 'always clean, it's warm and it's bright and it in itself never shows up any major problems or worries, it is an easy to maintain space' (interview 3), suggesting human mastery over space. She had been employed by the school the previous September and had spent a considerable amount of time before the school term commenced considering the layout of both the reception classroom and the nursery (see figure 4 for examples of the classroom layout). She spent some time discussing how the rooms have been restaged and the impact this has had:

I did the reception room over the summer...into the EYFS reflecting areas...the nursery has been re-zoned properly. We have had a new member of staff who has been very much inspirational in that sort of thing which is great and she has kind of reflected where we want to be with quality provision so we have thrown out quite a lot of old plastic resources...They had got to a point where all they did was fairy dress role play, the minute they were free they fairy-dress role-played and they played a game sort of...together but floating round the room and they weren't interacting with any of the resources to the point where the teachers that were here before said the role play was only available at certain times of the day to try and encourage them to play, whereas the re-zoning has made a massive difference (interview 2).

¹³ Here the actant is something that acts on, or is granted an activity by others 'an actant can literally be anything provided it is granted to be the source of the action' (Latour, 1996: 7).

Figure 4 Classroom layout



As noted in the excerpt a territorial assemblage is formed as certain components coalesce; these include the EYFS curricula framework, the teachers and children who inhabit the classroom space and the resources within the classroom. The reception classroom is the entry point for children into the school and is the border/boundary between a play based curriculum (the EYFS) and more formal aspects of learning (the National Curriculum, DfE, 2014b). Influences from the school and the National Curriculum (DfE, 2014b) will/may influence and spatialize the classroom territorial assemblage and Hannah has chosen ways to set up and zone the space to support the development and learning of the children in her class. Initial readings of the data could suggest that this type of classroom zoning striates and territorializes the space to provide a more structured learning space (c.f. Sylva *et al.*, 2004; Taggart *et al.*, 2015 on quality and teacher-led classrooms in settings and schools; Grieshaber and Canella, 2001 where professionalism is influenced by shared values and ideologies of professional contexts) to move away from it being predominantly used for fairy dress role play. The affect generated from the classroom: policy entanglement promoted striated space and resisted smooth space and enacted the need to re-humanise and produce a school-ready child.

However, the data needs to be considered as part of the wider molar territorial assemblage which has learning as a key priority. In her research diary Hannah discussed how the zoning of the room was prompted both through the meta-narratives of ECEC literature and policy and her desire to consider how phonics and math's engagements could become part of the child's day (c.f. Teachers' Standards (Early Years), DfE, 2013d). She concluded that children accessed all new zoned areas of the classroom, including those set up for math's and phonics, but that that her initial 'isolating affects and possible detrimental effects on linking curriculum areas through play have become unfounded' (research diary 2). The meta-narratives and the classroom space have an agentic relationship with Hannah which in this instance territorializes her and the expectations of space. Hannah's comments link with the EYFS, which details that as children progress to the Reception year play should become more adult directed and structured to support the child's transition to the later Key Stages (c.f. Sachs, 2001 and State mandated professionalism; McGillivray, 2011 personal agency allows Hannah to decide the structure of her classroom). This territorialization reveals Hannah being-teacher in her need to meet curricula and regulatory requirements for learning. However, the (de)compo(s)(t)ing of the territorial assemblage sees striated space as the expected expression where the connections of curricula, Early Years Teachers and classroom spaces are entangled and exposed.

Classrooms and the fold – water play

Stengers *et al.* (2009) discussed how the fold can be used as a concept to move past binary thinking when they considered 'in short, the folding itself is something like a history. It's a molecule-milieu history which obliges us to think through the "middle," through the milieu (par le milieu), as Deleuze would say' (Stengers *et al.*, 2009:2). The fold in this instance is an example of a continuation which is reflected in a folding rather than a splitting into binary parts (Pacini-Ketchabaw *et al.* 2016). The fold was generated in the classroom with regards to water play and on the second visit to the classroom where the fold was comprised of classroom zoning, a hairdressers, water play and Hannah's research diary. Hannah and the children were engaged in what she entitled 'plan, do, review' time, here children could freely select areas of the classroom to engage in child-led play. A section of the classroom had been set up as a hairdresser's salon with real resources such as towels, hairdryer, a piece of shower hose with an attaching shower head, hairbrushes and accessories. The furniture had been moved to enclose the hairdressing salon space and all but one girl was playing with Hannah in this area.

By disturbing the notion of 'plan, do, review' time a molecular movement/moment was revealed as the resources allowed the children to direct their own learning via play based

activities. This movement/moment of child led curricula space saw Hannah becoming-professional as the line of flight smoothed the striated space of the classroom territorial assemblage as the children select where to play. The disturbance of the material resources and the way the zoned area of the classroom had been physically shifted to facilitate this play offered a moment of deterritorialization where Hannah became the customer of the hairdressers and the children were the proprietors. Here, in the fold, the dynamics of classroom power break down with space allowing children to lead practice, showing space is never neutral but is in constant flux where striated space is smoothed and vice versa. The physical movement of the classroom space sees the hairdresser's salon activate becoming-minoritarian/minor gesture as the space (re)turns the smoothing of the adult led/child initiated play binary.

Alternative readings – ‘hair or care’

An alternative reading of this movement/moment takes a line of flight to the deficient, gendered notions of ECEC practitioners with vocational routes to ‘hair or care’ courses (page 35) (Vincent and Braun, 2010; 2011). The teacher: child couplet enact a moment of being-teacher and reflect the historical limited career roles for women. Playing hairdressers sees the space gendered as these roles are enacted, which is ironic in a private school which has high expectations for its female pupils. However, this role play may reflect and reinscribe expected gendered notions of ECEC practitioners in deficit as I further witnessed gendered play in the home corner where girls were cooking and playing with babies (see Reay, 2001; Davies, 2003 for wider discussions on this topic). This reading highlights how Posthumanist theorising does not always provide an alternative to gender hegemony. As Grosz argued the reterritorialization of human bodies can reveals how ‘women are still the vehicles, the receptacles of men’s becomings’ (1994:182) and this is highlighted by the analysis.

Wet hair – ‘general water carnage’

In this micro-political movement/moment part of the role play involved the use of a small cup of water. At one point a child used a sopping wet sponge on Hannah's hair and was asked to wring it out properly before being used again. Hannah considered this incident against a wider use of water within the classroom and the impact this had (c.f. Whalley, 2011; Anderson, 2014b critically reflective practitioner). In her research diary, she detailed how the play later in the week had descended to ‘general water carnage’ where the deterritorializing affect of water was to encourage the children to fill every receptacle to the brim with water and use this to soak

the people engaged in the play. The (de)compo(s)(t)ing and smoothing of space detailed in these incidents show how an entanglement with material (in this case water) produced a sense of chaos in the classroom territorial assemblage. Becoming-minoritarian/minor gesture provides an ethico-political (re)turn to resist curricula and classroom spaces. This resistance to the ordering and striated classroom is an affect, albeit, a potentially negative one. The hairdresser's salon becomes a relay (Massumi, 2016) to an anarchival research-creation moment of becoming-with-water-play as alternative to an archive of segmented gendered expectations which are enacted for women.

Water play tensions in smooth/striated space

Although messy play and water play are components of play based learning in the Early Years the incident highlights the tensions when space becomes smoothed and a perception of chaos and anarchy are the result. Deleuze and Guattari noted that 'chaos is defined not so much by its disorder' (1994: 118) but by what Grosz (2008b) noted were a plethora of other virtual forces in which molecular randomness congeals to form territories. The molecular movement/moments-with-water described by Hannah shows how affect and the disturbance of a sensory engagement on the boundaries of the children's skin makes the familiar classroom space unfamiliar. Hannah described how children played outside of classroom rules and showed a 'lack of impulse control around water' both in and outside of the classroom where becoming-minoritarian/minor gesture provided a different ethic of encounter and new conditions of possibility which jarred with curricula expectations. In this instance a compensatory reterritorialization saw water play being restricted for a short period which reveals that entering a smoother space can be risky as new movements collide with expected familiar spaces. These explorations note the flows between becoming-professional which move life to more anarchic ways of acting and being-teacher which returns the order required in learning spaces.

Montessori classrooms

The space inhabited by Rose saw different challenges as the setting was a Montessori pack away¹⁴ within a local village hall (figure 5). Here the village hall was agentic in different ways

¹⁴ A pack away setting is generally a term time sessional pre-school following the EYFS which is based in a village/community hall. As the space is shared there is an aspect of setting up and packing away each day.

including the restaging of the classroom each day and the influence of the different spaces on professional practice. The setting followed the Montessori curricula framework (Isaac, 2012) which was bounded by the overarching EYFS. The classroom territorial assemblage components included the Montessori curriculum and professional practice, which contained Montessori materials designed to implement the curriculum. Juxtaposed against this was the EYFS statutory framework which produced areas of tension and similarity between the two approaches (Isaac, 2012). Other components of the territorial assemblage included the Early Years Teachers and children and the other hall users who defined which spaces the classrooms could inhabit depending on the needs of the village hall.

Staging the classroom(s)

There were two potential rooms that the classroom could be staged in, Rose entitled these the ‘small hall’ which was the primary space and the ‘big hall’ which was the secondary space and used less frequently as the following excerpt from interview 1 highlights:

on Monday morning, we come in and get everything out of the basement and from the shelves and set everything up in the small hall. And then it depends on what meetings are scheduled to be in the hall that week so there’s probably one week in a month where we have to pack away every day; we don’t put everything back in the basement every day, we pack into the corner of the big hall and then we’ll get everything back out the next morning so when the children go home we pack away at the end of the day. Or if we don’t have to pack away all the things, we still have to bring in all the...stuff..., so even if we don’t have to pack everything away; we probably have 20 minutes of packing away some of the stuff each day. On one day a week we always go into the big hall to set up so on that day we sometimes put the stuff into the big hall, in the corner, and then we set everything out that morning, or we move it across from the small hall, so we don’t have to rearrange the shelves, it depends on what has been on in the small hall of course (interview 1).

In this except a multiplicity of striations disturb the village hall space which territorializes the classroom and sets the rhythm of the day and when/how the space is set up to meet the needs of the other hall users. In a later interview, Rose details the setting has a range of material resources which follow the Montessori curriculum and that these need to be set up in specific ways to support the child’s development from a Montessori perspective (c.f. Montessori practice supports the framing of professional identity, see for example Grieshaber and Canella, 2001;

Beauchamp and Thomas, 2009). In this instance the classroom is staged in the same fashion each day whether it is located in the ‘small hall’ or the ‘big hall’. Space in this production is what Dewsbury and Thrift (2005) detail the three dominant ways space is rendered. The first of these is ‘space as a *Newtonian* conceptualisation’ (Dewsbury and Thrift, 2005: 89 emphasis in original), where space becomes a container for action; secondly, space as a relative active agent where space acts and has a weak effect; finally, space as a social construction and a product of society. The classroom staging that Rose describes are all these things and the striations disturb other ways to aerate and stage the space; these being the rooms provided and the other hall users who impact which rooms the setting can access. These stagings are an enactment of being-teacher to prepare a learning space to meet Montessori and curricula requirements and the needs of other hall users.

Figure 5 Small hall (a and b) and big hall (c) staging



Staging the prepared environment

One of the Montessori philosophy’s cornerstones is the prepared environment which includes the ordering of the materials available for children to access. The resources need to be used in a

specific way to ensure that children learn about how to manipulate the materials within their environment. The agency of the Montessori material produces further striations as a double articulation, classroom-space/shelf-space. Within a territorial assemblage on one axis are the content and expression of the assemblage, with the content forming the components of the assemblage and the expression being the way the social framework triggers changes within the assemblage (Bonta and Protevi, 2004). The second axis relates to the (de)(re) territorializations within and between the assemblages.

The staging of the space is a stratified territorial assemblage which presents a stable classroom system required due to the influences on the way the space is set; these are the content and expression of the assemblage. The archive is a spatial classroom archive where material memory determines how the space is staged. This is revealed as segments, both linear and circular, noting progression in learning and impacts of policy and the Montessori ethos. This stagings are akin to Manning's techniques, which can be 'associated with habit and skill' (2016: 124), with the Montessori resources affecting the spaces in which they are placed, always the same place, every time they are staged. This is exemplified by the excerpt below and by observations I made where both Early Years Teachers and children are encouraged to (re)stage the environment at multiple points during the day:

Because it's supposed to be in order, like the shelves, so like the tweezers are supposed to be in the right order, and the children are supposed to put them back in the same place when they get them, but if they're not in the same place as they're expecting them to be or they are not in the right order then it wouldn't make as much sense so you kind of need to, if they've left them, you need to re-arrange the shelves if they put things back in the wrong place you need to put them back in the order that they're supposed to be in and there's a lot of different materials so that takes quite a long time, and then yeah, the layout is the same in, wherever we're in, all the shelf layout is the same in the big room or in the small room so they always know where to find the things (interview 2).

In the above excerpt, Rose considers how the double articulation of the territorial assemblage (re)turns and striates the space-materials to be used for a specific (learning) purpose (c.f. professionals acting with autonomy and responsibility to children, the EYFS and Montessori principals, Lunt, 2008; Miller and Cable, 2011). Initially the staging of the space is territorialized and coded by the expectations of Montessori practice where the material is set up to be used from left to right which denotes a progression in the children's learning. Furthermore, the EYFS is influential in as much as it folds, turns and plugs into Montessori expectations setting the space for ways to measure children development and learning through the Early

Learning Goals. The striations continue with workspaces being delineated as Rose states in interview 1: ‘all of the Montessori work is either done on mats or you take your tray to the table, so each cupboard has like mats underneath it so they can take out the mats to do their work on’. Deleuze and Guattari discuss how milieu (the components of a territorial assemblage) are ‘vibratory, in other words, a block of spacetime continued by the periodic repetition of the component’ (1987: 364). In this excerpt Rose reveals the life of a Montessori territorial assemblage and how the repetition of staging the environment striates, composes and vibrates the space to facilitate a child’s development. These striations are a requirement for order in the classroom but also act as a means to display professionalism. In Rose’s case being-teacher is the expectations of policy, practice and parents.

Smoothing of space – ‘the big hall’

However, the space and materials can be disturbed and smoothed in many ways. The ‘big hall’ represented as a block of space-time which smoothed some of the aspects of the Montessori territorial assemblage. The ‘big hall’ became an activator for movement-action and a condition of possibility for becoming-minoritarian/minor gesture. Space was (de)compo(s)(t)ed with the ways children and Early Years Teachers reacted to the materiality and nature of the room. The ‘big hall’ was described as much larger with a high ceiling and a wooden floor which produced echoes as feet and materials were used disturbing the affect of the enclosed space. During the first observation the ‘big hall’ encouraged children to disorient the territorial assemblages and produce different conditions of possibility for the new space. At this point in the observation the poor weather conditions had meant that the garden could not be used so the outdoor play had moved into the empty ‘big hall’. When questioned on the big hall Rose discussed the following:

they [*the children*] talk louder because it’s echoey and then the others start shouting over each other and it gets louder and louder and it just makes more noise when you’re walking around and stuff so I don’t know but when we’re in the big hall it always seems more stressful in the big hall! (interview 1)

oh, what are we doing in the big hall [*the activity that was observed during the first visit*], kind of excitement! Kind of, and they like doing that stuff, like the parachute game, they know that that’s stuff out and they’re going to do something different and it’s like ooh, and they always go a bit crazy and they just want to run around in that big hall (interview 1).

In these excerpts the space moves between striated and smooth as the flows of (de)(re)territorialization are revealed. These flows detail an opening up of forces which demonstrate reveal the new affects and agency of the 'big hall'. If a territory is described as an encircling of milieus, then Deleuze and Guattari (1987) consider what happens when the territory is opened up even just a small crack. In this instance, lines of flight escape through the crack and cause experimentations with the range of connections within the territorial assemblage. In the initial reading of the data the Early Years Teachers are equally as overcoded as the space where they can be seen as part of the setup of the 'big hall', which promotes Montessori ways of learning and orients itself towards order and a particular safe use of space. However, the 'big hall' is a site of deterritorialization itself as the dimensions and construction of the hall allow children to make micro-political ruptures as they use their bodies and voices in non-standard ways. The agency of the space invites the stamping of feet and the raised voices as an affective response which smooths the space and reveals a chaotic effect on the normative notion of classroom learning. The materiality of the space, the floorboards, the high ceilings, the size of the hall all contribute to the suppleness of the classroom space and the children play a parachute activity which sees them covered by a large silk parachute, laughing as it is raised and lowered over their heads as they lay on the floor like sardines in a tin. In this moment, the outdoors reverberates indoors as the children play in ways which seem alien to the Montessori classroom, which normally promotes order and learning. These more-than-human engagements reveal becoming-professional as a fluid and distributed subjectivity is produced. The Early Years Teacher, children, hall, parachute, sounds and how the space feels are all components of this.

Afterword – space and classrooms

In this section I have explored what is produced in ECEC classrooms. Here I theorised striated space as a body constrained within the expectations of the curricula (DfE, 2014a) and noted that this could be seen as the archive of Early Years Teacher relations. As with all Posthuman and Feminist New Materialist concepts it is important not to binarize life as smooth and striated space are not opposite (i.e. good: bad), they are different registers to life in/through which encounters are produced. For example, within Hannah's classroom striated space produced the expected zoning of classroom and resources to mirror the expectations of the EYFS and the linkage with the expectations of the school. Water became a molecular earthworm movement/moment of becoming-minoritarian/minor gesture in the classroom as this sensory engagement disturbed the children's expected behaviour as desired classroom experiences were

(de)compo(s)(t)ed. Physical space also played a part for Rose where wider temporal and spatial assemblages revealed earthworm like (de)(re)territorializations between the two rooms available for the pack away setting. The ‘small hall’ was brimming with Montessori resources which contained and striated the space where children use mats as part of the Montessori work cycle. When the room was staged in the ‘big hall’ bodies are disturbed as the sound and affective agency of the room produce non-standard usages of the space and the material objects. Both Ahmed (2010) and Lorraine (2005) detailed how bodies and spaces have their own affective agency that humans cannot ignore and these wider orientations act to both smooth and striate (Deleuze and Guattari, 1987) in the unexpected ways detailed in the encounters.

Space and diffractions – drones and bees

I am interested as to what might be diffracted within these spaces. I note that in certain texts (see Featherstone, 2008) children are seen as bees buzzing around spaces and labouring in an act of social construction; learning becomes collective rather than solitary (like butterflies). There is a tension in the notion of child-as-bee that can be linked to neo-liberal human capital theory as a means to produce competent individuals as worker (bees) (Becker, 1975). Furthermore, this notion was also alluded to by a former children’s minister Elizabeth Truss, who felt nursery classrooms should be a hive of activity with children engaged and not swarming around displaying what she entitled ‘unruly’ behaviour (Williams, 2013). These segmented images of child-as-bee suggest the classroom as a re-humanising intervention with the Early Years Teacher as facilitator. Bloomberg (2015) details the bee colony as a vivid metaphor for human society, which steers the governing of humans with regards to work, industry and labour relations. Deleuze (1992) suggested a move away from governmentality to a control society where the requirement of productive human workers to feed the neo-liberal machine was still important. Furthermore, Bloomberg (2015) considers the concept of the drone which he sees as a multiplicity of paradoxical relations – drone as a subject of conservative political order, drone as a musical melody of harmony and dissonance, drone as a refrain (c.f. Deleuze and Guattari, 1987), drone as a resonant collective body, drone as remote-controlled military surveillance-destruction machine.

Moving forward the concept of drone as surveillance-destruction machine is exemplified by recent policy developments from the Coalition government (2010-2015) to instigate a teacher retraining programme entitled ‘Troops to Teachers’ (TtT) (DfE, 2010). Chadderton (2014) has argued that the militarisation of English schools reflects a wider militarisation in society which reproduces controls and further promotes white supremacy. Furthermore, she argued that the

TtT programme ensures a more authoritarian behaviour control which becomes replicated in modern life, this control targets young, generally BAME males of lower socio-economic backgrounds. It could also be argued that the instigation of Fundamental British Values and the Prevent Agenda reflect a securitization of race and gender upholding patriarchal white supremacist modes of existence against Early Years Teacher and children as dehumanised humans (Snaza, 2015). The imaginings reinforce the potential militarised turn where child-as-bee becomes conditioned to be productive members of neo-liberal control societies. Although there are groups such as 'Save Childhood Movement' these are couched against calls for a more adult led directive educative pedagogy (Gibb, 2017) reinforcing neo-liberal imaginaries. These diffractions have revealed relational drone-bee connections which become a 'droning of bodies' (Bloomberg, 2015: 17) where bodies are enmeshed in a classroom/Early Years Teacher/material/children collective productive assemblages of relations in space-time. Diffraction-as-earthworm reveals new images of the teacher: child couplet as the reinscription of neo-liberal control societies is realised in this engagement.

As Lorraine details 'it is never a matter of simply opening oneself to all the forces of the universe, but always of creatively evolving one's powers to affect and be affected by life in concert with surrounding forces' (2005: 163). I have explored how the classroom space has been (re)turned and disturbed between striated and smoothed by virtue of connections with territorial assemblages. Each of these movements/moments activate relays of (an)archival usage of space with the interplay a research-creation event in itself. In a number of cases the striations have been a requirement of the territorial assemblages and have produced the order needed to maintain an ECEC classroom. These spaces reveal being-teacher enacted as productions of the meta-narratives of policy and expected profession practice which has clear expectations of the role of the Early Years Teacher to support the children's learning and development. There are also expectations as to how the space is framed and staged as part of the wider learning and developmental narrative. In the diffractive irruption-as-disturbance I have theorised the child-as-bee/drone which becomes a metaphor for the policy and practice link to human capital theory and wider neo-liberal agendas which promote the re-humanisation of the segmented Early Years Teacher and child. However, micro-political moments and ruptures of becoming-professional have been explored. I argue these more-than-human relations counter the neo-liberal Teacher and child as space becomes smooth. Care must be taken as lines of flight do not always produce suppleness, for example the gendered reproduction of hegemony and experiences for women and children. Here earthworm disturbances see becoming-minoritarian/minor gesture as more-than-human encounters where spaces have agency and move between smooth and striated, in

some cases producing a more chaotic mode of existence and experimentation as part of the wider life of ECEC classrooms.

Mats

Classrooms and carpet time

The mat/carpet is a prominent feature in Reception classes in England. Children engage in ‘carpet time’ and this time generally includes aspects of teacher instruction. In this section I discuss how more-than-human mat entanglements and lines of flight are revealed. During all my observations, the mat, which was situated in front of Hannah’s desk, took a prominent position in the classroom. The start of my observations coincided with the start of a morning or afternoon session and the children were always sitting on the mat prior to engaging in other activities. In all observations, the mat was the focus of instruction; it was used for planning certain activities, for example, planning a play during one visit, and listening to a story read by older children during another visit. The mat is an interesting item in itself as in Hannah’s mind it has a key purpose in the classroom ‘They [*the children*] do see the mat as a place of learning. They very rarely bring anything from their free flow play onto the mat. They’ll take things into the tent, you know plastic food and stuff, they’ll take it across the mat into the reading corner, yes but generally non-academic stuff does not tend to end up on other places’ (interview 1).

The mat becomes an element of striated space in the classroom as it is the focal point for Hannah to give instruction to the class. Deleuze and Guattari (1987) consider how lines in striated space move between two points, (denoting a linear progression from A to B), and this is reflected in the time spent on the mat. Hannah, being-teacher, supports children’s progression in learning whilst they sit on the mat, whether it is with regards to designing a play to be performed to the school, listening to a story, or discussing what can be learned from the day’s activities (c.f. Hannah leading quality teacher led practice Sylva *et al.*, 2004; Taggart *et al.* 2015, personal agency and pedagogic practice, Fenech and Sumsion, 2007). The vibrancy of the mat had a particular affinity for one child. Hannah explained that this child liked to sit on the heart motif every time the mat was used. Here, the mat produced an affective response in the child which resulted as a disturbance as she (the child) responded to the affective call of where to sit on the mat. An alternative reading sees the gendered nature of the Early Years Teacher as part of an ethic of care (Moyle, 2001) which could be reflected by the child’s choice to sit on the heart motif as emotions and maternal expectations of ECEC collide.

Figure 6 The Mat



The children engaged with the vibrancy, agency, and materiality of the mat but also revealed molecular entanglements with the expected norms of the space. For example, in observation 3, two girls were involved in a picnic role play which had started in the book corner but had moved out from there onto the mat. Exploring the mat-child relations can reveal what is produced in Early Years Teachers as Hannah had previously stated that the children rarely bring other items onto the mat (page 110). However, a line of flight connects the picnic-role-play-mat-space as the girls brought with them a second smaller farmyard mat and laid this over the mat (figure 6) as a picnic blanket and then unpacked their picnic items. This anarchival relay of deterritorializing movement sought to smooth and disturb the mat-as-learning-space. The farmyard mat became a molecular point of departure, an interstitial space of transformation, which temporarily (de)compo(s)(t)ed the mat-as-learning-space to a picnic-role-play. Furthermore, Hannah revealed her own molecular suppleness with regards to the mat when asked if the children had a favourite space in the room ‘Louise and Stella who definitely like that role play, the sort of laying out the picnic that you saw on the carpet’ (interview 3) (ECEC teaching is multifaceted, Oberhuemer, 2005). It is in this micro-political moment that the mat becomes a point of play, a heterogeneous usage of the mat filled with earthworm encounters and connectedness where burrowing reveals teacher instruction, picnic-role-play, story time, planning activities, the gendered expectations of women in the production of food, and affective responses in children. Hannah is also entangled in the paradox of the mat-encounter being-teacher as the mat is used as a site of instruction and becoming-professional as the mat is used in child initiated play.

Montessori and mats

In Rose's setting mats had a similar function, however, in a Montessori setting the mat is also the child's workspace. Here, children retrieve a mat, complete their activity on a mat (or a table), and return to mat to the predetermined spot (Isaac, 2012) generating mat-as-temporary-relay. In many cases the agency and vitality of the mats sought to both striate and smooth the space on offer as the children used the mats initially during their activities but, mat-as-activator, circumvented children as they engaged in their play. Focussing on the children's experience with the mat is entangled with both the striations of Montessori practice and the expectations of the Early Years Teacher. For example, during the second visit observation I witnessed how children started playing with a range of cars and trucks on the floor, this was observed by another Early Years Teacher who asked them to move the cars to the table or use a mat so no one could fall over them. At this request one boy collected a mat and the other boy put some of the cars on a table. The boys placed the mat by one of the smaller tables and they proceeded to drive their cars round on the mat calling 'eeeeep!' as they played. They then moved off the mat towards the back of the classroom and drove their cars over the floorboards. The Early Years Teacher looked at them and said 'over there' nodding her head back to the mat. The boys turned their cars round and drove them back. The boys moved back by the original table and then started to fly toy aeroplanes around the classroom encouraging another child to join them in their game.

The mat in this excerpt offered different conditions of possibility for the boys as its affects engendered new movements-in-action. Initially the mat-road became an entry point for more acceptable classroom behaviour. This mat space soon become disturbed and produced lines of flight to draw the children to wider and bigger movements which required more physical space and, in a moment of deterritorialization, an entry point to the bigger wooden classroom floor was on offer; small mat-spaces encourage movement to bigger classroom-spaces. These micro-political movements of deterritorialization smoothed the classroom space and saw the mat-territory expand to include classroom floors and classroom airspace with the mat becoming aggressor in a hostile takeover of the classroom. These movements-in-action-space did not escape the notice of one of the Early Years Teachers and the cars, aeroplanes and children were subject to compensating reterritorialization as the Early Years Teacher directed them back to the mat-space for a more sedimented version of their play; the mat (re)turned becoming both activator of potentia and territorializer of play.

Different mat conditions of possibility

In the following excerpt, Rose discussed her experience of the mats:

Yes there are good and bad bits to the mats and quite often they [*the children*] sit on them as well but I don't poke them off the mats for sitting on them if they do if they're settled, and they are supposed to do their other stuff on the mats as well so if they've got the dolls' house that's supposed to go on the mat or the dinosaurs they're supposed to go on a mat and also it's in some ways it is quite good because it stops them going round and round like "Oh I've got a flying dinosaur and it's flying all the way round the room" and it stops them doing the round and round the room stuff (interview 1)

And I think with some of the things it's more obvious that you need a mat than other things, so like some of them will start off on a mat and then wander round, so they might go and get the planes out and then get a mat because they know they're supposed to get a mat. And then they'll start flying their planes around and then their planes start zooming all around the classroom and go round the table and then end up in the ice, igloo, or something which is like I don't mind but! [laughing]... so I think as long as they're all getting on that's fine, and as long as it's sort of contained within an area, I usually tend to just ignore the fact that they're bombing around the room (interview 2).

It is apparent from the interview and observation excerpts that mats can offer different conditions of possibility for both children and Early Years Teachers. Initially Rose admits that she does not ask the children to get off the mat they may be sitting on (in Montessori practice the mats are for work and not for sitting on) (Rose's professional agency circumvents traditional mat usage, McGillivray, 2011). This admission becomes a smoothing of the entangled space as mats engender becoming-professional to (re)turn different possibilities for their usage. Here the teacher/child couplet are a zone of indiscernibility as children becoming-with-mat and becoming-professional are inseparable. However, Rose does acknowledge the positive usage of the mat-work-space and in this instance, refers to some of the positive of the striated mat space (children can work on an activity) alongside the constraints of the mat (the mat as container of space is activated). Micro-political moments of becoming-minoritarian/minor gesture reveal that the mat space becomes disturbed and smoother as the mat encourages children to disturb and circumvent their usage with Rose acknowledging and affirming these lines of flight which are the ebb and flow of (de)(re)territorialization. An alternative reading of this space sees a line of flight to the involvement of the TtT programme. In this reading the flying and running could be

explored as a more militarised classroom where the mat is used as a runway for drones and bombing raids (Bloomberg, 2015). The mat-as-activator could reflect some of the gendered expectations where girls sit on heart mats and have picnics and boys fly planes and run around (Reay, 2001; Davies, 2003). In Rose's classroom the female teacher curtails this type of play and reterritorializes the space as being-teacher in this mode of expression reinscribing expected gendered behaviour (Grosz, 1994).

Reimagining mats as vibrant objects reframes them away from a human centred object and reveals a different set of powers they may have (c.f. Bennett, 2010). In some cases, the mat becomes an activator of a more material engagement within the classroom where children and teachers can engage with new materialities. However, the mat could be viewed as a coloniser of space and as a pedagogical tool for control and regulation. Children are asked to sit on mats at 'carpet time' generally at the teachers' feet, this subterfuge of the mat reveals the teachers power and accedes the child as dutiful subject, listening to commands; the mat as control measure for a human capital neo-liberal machine. The mat itself becomes a duplicitous pedagogic space and a contradictory notion – children sitting on their bottoms on a mat, at the teachers' feet signifies limited spatial boundaries, however, the mat as modulation becomes a reinscription of power and control as the dehumanised teacher seeking to rehumanise the child (Deleuze, 1992; Snaza, 2015). Furthermore, that mat becomes a wider control modulation which sees Teachers perform in expected pedagogical ways as it (the mat) becomes a device to re-humanise the teacher. Becoming-minoritarian/minor gesture sees the mat as a political assemblage where agency distributed across human and non-humans (Bennett, 2010) reveals forces which provide counterpoints for control modulations.

I have argued that mats have an influence, agency, and vibrancy in classrooms and this becomes the relay to a potentially more anarchival smoother space. However, it can be seen that mats also play a role in controlling the child to behave in an appropriate way in the classroom, I theorise mats as a juxtaposition of control modulations and interlocutor with space which reveals zones of indiscernibility. Furthermore, I have detailed how becoming-minoritarian/minor gesture sees these mats express their own agency and reveal a wider range of becomings within spacetime. The resultant interplay can be highlighted by reference to Deleuze and Guattari when they state 'we must remind ourselves that the two spaces in fact only exist in mixture: smooth space is constantly being translated into striated space; striated space is constantly being reversed, returned to smooth space' (1987: 552). This is revealed with Early Years Teachers as the interplay between being-teacher and becoming-professional where earthworm disturbances note the fluid movements as expectations of policy and practice are enacted.

Tables

In this section I draw on Ahmed when I consider that bodies get shaped by repetition (c.f. Deleuze and Guattari's bodies in striated space, 1987) and note 'the work of repetition is not neutral work' (Ahmed, 2010: 247); here tables (re)orient bodies in some ways rather than others. Sarah Ahmed, in her chapter *Orientations Matter* (2010), used the table as an object for thinking about how bodies become orientated in space. She detailed that the table is a seemingly normal everyday object that we can take for granted. These familiar objects can produce their own materiality as we explore what occurs on the folds with/on the table and its engagements with other bodies. By using the table to activate thinking it becomes possible to consider the relationality within and between bodies/objects as 'each object is linked to each other, so that the object becomes more than the profile that is available in any moment' (Ahmed, 2010: 238). This section will explore the inter-relatedness of tables, objects, humans and space.

Becoming-with-tables in school classrooms

Becoming-with-tables within the classroom space revealed a wider material entanglement for both Hannah and the children. The tables used by the children were set up and staged by Hannah and reflected the curricula needs of the day (c.f. professional integrity and responsibility balancing learning needs and curricula needs, Lunt, 2008; Miller and Cable, 2011). For example, the horseshoe table was generally where the writing and guided reading input happened. In fact, Hannah discussed how the children would choose to work at the horseshoe table and would take items and resources from the floor to work there. Here the vibrancy of the table orients itself in being-teacher as it becomes a space for working and learning on. Hannah considers this is because of the expectation of school and the children see how other classrooms are being used and mirror this in their own classroom. However, the striated space can be disturbed and smoothed and tables can orient themselves towards different relationships. For example, a change in nature for the horseshoe table when a nursery child rushes into the classroom during a guided writing session and become an unexpected part of the space:

A nursery child runs in the room to Hannah and asks her to hold a stuffed toy duck 'will you look after my duck?' she says as she rushes out.

The nursery child rushes back in 'can I have my duck back' she asks and rushes out. Hannah 'Anytime you need the toilet I am happy to hold your duck' she shouts after nursery child. Jessie (to Hannah) 'She is a walky running girl!' (observation 1).

In this short excerpt, another child momentarily disrupts the guided writing session. She acts as a ripple within the space and distracts both Hannah and the child she is working with. This small diffraction sees Hannah as a holder of ducks rather than a teacher of writing. As Ahmed (2010) suggests the table has materialised and gained certain tendencies by the ripple in space, in this case the holding of ducks. This materialization affects the space around the table and it becomes momentarily vibratory (Deleuze and Guattari, 1987) as it flows between striated writing space to smoother duck holding space.

Hannah also considers the impact and orientations of space on her, particularly her own desk which the school had purchased at Christmas (figure 7). Here she mentions:

it was quite a big thing, and I do like it, especially the drawers and things, they kind of feel like they're my personal space and I put things in them when I know they're not going to be touched which you just can't have anywhere else in the classroom however much you know a resource, that they know they're not allowed free choice, but you will always find somebody touching it and you think, mm, and just knowing that when you put something in there it's going to be in there again the next time, just the right thing in just the same places. It's quite nice, really in a way that everything else has been staged-for them, it's your little bit of adult space (interview 2).

Figure 7 Hannah's desk



The desk in this instance has a twofold purpose – it cements Hannah as being-teacher in the wider school context but also as becoming-professional, as it is her safe, special, professional space which is personal to her (Self-image and structural norms can be a reference point for professional self-image, Murray, 2013). Perhaps the agency and orientation of the desk helps to

affirm teacher status and attendant behaviour – teacher space and property are protected. Deleuze and Guattari (1987) reminds us we have no *a priori* knowledge of a bodies capability and how the desk might influence Hannah. Until she was given the desk she did not know what the orientation might have been and how the desk might affect her as this was outside of her perception, out of reach, beyond her horizon (Ahmed, 2010). It is clear by her statement that the desk has oriented and affected her in a number of ways within the wider school community including her feelings of worth within the community and her need for a ‘safe’ space for her things. The desk’s ‘deskness’ has given her these connections and orientations making wider relations with the school and other teachers. There is also a temporal nature to this encounter; Ingold (2007a) uses time to encourage us to think about changing aspects of materiality suggesting matter is always already in the process of materializing. Hannah’s desk is temporally located within the relations it has with other bodies – it has taken time for it to produce these orientations and is open to those which are yet to come.

Montessori and table orientations

In Rose’s setting the table is a Montessori workspace in a similar way to the mats. Rose examines the relationality that occurs with the tables in her classroom:

we’ve got quite a lot of tables and chairs for a setting. Like lots of nurseries don’t have so many tables and chairs but a lot of their [*the children’s*] activities are supposed to be all set up at the tables to do the activity, and they’re supposed to be for one or two people, so we’ve got more tables and chairs. It is set up more like a classroom than, like in an Early Years setting a lot of them just have cushions and floor mats and they will just play on the floor. We do play on the floor and they can choose...if they want to do the cars on the floor, or on the table, that’s fine, or if they want to do their activities on a mat instead of the table, then that’s fine (interview 2).

The tables (and mats), as extensions of the learning space, orient and expand bodies towards certain capacities (here they are activators of teaching and learning, a space to put and engage with work). Ahmed (2010) suggested the more we work with these preferred bodily orientations the more the bodies present these capacities. This is similar to the overcoding described by Deleuze and Guattari (1987) which inscribe, reinscribe, and limit conditions of possibilities. The repetitions and (re)turns of Montessori practice and the use of tables-as-workspace have been part of the Montessori curriculum since the first Children’s House setting appeared in 1905 (Isaac, 2012). The history of tables presents what Ahmed noted as ‘not only the work done by

generations but the “sedimentation” of that work as the condition of arrival for future generations’ (2010: 241). Tables have a spatio-temporal influence on Montessori history as the use of tables has reinscribed and striated their usage as object-spaces of learning. Being mindful of what bodies are capable of allows us to open up to new orientations and conditions and not to foreclose the table-as-workspace from future unknown orientations. The table as figuration for political work can be seen ECEC classrooms and as an affect of historical re-membering of Montessori practice.

Tables as historical and political work

I have drawn on the work of Ahmed (2010) to activate thinking-about-tables differently as to how they are produced in both classrooms and history. The seemingly humble table, children may see them not only as a place for work in an ECEC classroom but as a place to hide under, a refuge or a den, a space to eat snacks and chat with friends. As Ahmed (2010) details orientations matter, and this mattering can affect other humans to allow the table to be a coloniser of space and a control modulation. The material vitality (Bennett, 2010) of the table sees humans in more-than-human relations which transform statuses, for example, Hannah feels part of the teaching team. The table also becomes striater/smoothen/producer of spaces as detailed in Hannah’s movement of the classroom to form a hairdresser’s salon.

This section has allowed me to consider what tables do to/for the Early Years Teachers and children and the agency and vitality they display. I have considered how tables can disturb striate and smooth spaces as part of their wider inter-relationality with other bodies within and between territorial assemblages. Moreover, I have theorised tables and mats as colonisers of space and transformers of other bodies with both of these having a major and a minor role in the classroom. These disturbances and aerations and diffractions are framed by the dominant meta-narratives of expected Early Years Teacher: child behaviour within classrooms. Furthermore, I have detailed how becoming-minoritarian/minor gesture sees tables engendered as becoming-professional with Early Years Teachers and the influence wider meta-narratives of policy and professional practice have on them. I concur with Ahmed that the table can be ‘a disorientation device, making things lose their place, which means a loss of coherence of a certain world’ (2010: 254).

Figure 8 Mats and tables in the classroom



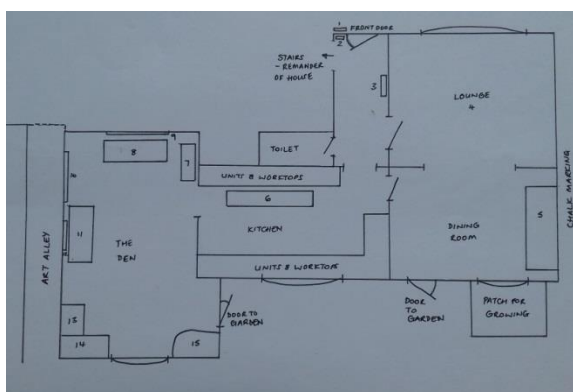
Homes

Delineation of home spaces

In this section I encounter Sarah who was a child-minder based in her own home. Due to the nature of working from home, space was used very differently and home spaces had different influences for humans and non-humans within them. Sarah had the added focus of balancing the needs of her childminding business and her family home. She had mediated this by have certain areas of her home set aside for childminding as she mentions in his excerpt:

OK, so in my home, there's one room which is permanently for child minding which is what we call the Den, the rest of the house is like a pack away setting but I started to use zones because I'm lucky to have a lot of space, I started to use different zones for different things, through experience of childminding (interview 1).

Figure 9 Sarah's childminding space and circle time activities in the Den



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The rooms in her home provided a physical delineation of the way space was used by Sarah (c.f. quality practice meta-narrative, Sylva *et al.*, 2004; Mathers *et al.*, 2011, professional responsibility, Lunt, 2008; Miller and Cable, 2011). In a similar way to Hannah the EYFS produces territorializing affects on the space. These striations were needed on two levels; to fulfil the curricula needs and requirements of the EYFS, and to provide the boundaries (although sometimes blurred – as in the image above) between home/work physical spaces. When questioned further the whole of the ground floor was used for childminding purposes (figure 9) where different rooms had different purposes. The Den was the space permanently set up for childminding and had the book corner, role play, toy storage, and art/creative corner. This was the room where daily circle times were held where the children would discuss a topic in preparation for the activities set up for the day.

The kitchen became a transitional space where children moved about/through the setting and would have their lunches and snacks. It was also an area where the children would engage in cooking or certain craft activities which were planned for the day/session. The lounge area was generally set up for quieter activities with a curricula themed element as the room could be shut off when needed. The dining room had been allocated as space for what Sarah had entitled the EYFS Stations where focus activities were set up to catch up areas of the EYFS required for a holistic assessment of child development. There were utilitarian areas within the house such as the hallway which was a more performative space in as much as the mandatory information was displayed for parents and safeguarding procedures were upheld plus space for the children's belongings. Each of these areas/rooms became territorial assemblages which distributed agency

¹⁵ I have been given permission to use this photograph on the understanding that the children's faces were blurred to maintain anonymity.

of/from non-humans permeating the different space's focus and function. Plugging into the EYFS, a double articulation occurred where spaces became sedimented and segmented with these territories and orientations revealing certain ways bodies acted within the space (Ahmed, 2010). In this way being-teacher was a required enactment of policy. A lone worker does not have colleagues to support their practice and this can lead to a range of segmentarities which are enacted to maintain appropriate control. Sarah was also impacted by the dehumanised model of professionalism as child-minders traditionally held lower levels of qualifications than the status of Early Years Teacher (Ofsted, 2012). This neo-liberal de-valorisation of professionalism reveals how the connotation of 'minding' denotes a lower female maternal status than 'educating' (also see Jones and Osgood, 2007; O'Connell, 2010; 2011).

The delineation of space was for both practical and family reasons. Sarah discussed how her own children were aware of the 'working' space and knew that any toys or items left within these spaces became public property. The room boundaries/walls formed strata where EYFS areas of learning were intensified. Each room/area had a purpose producing a stable stratified form of material engagement where known outcomes could be observed and assessed as the Early Years Teacher and the children worked (c.f. professional legitimacy; child-minders may feel more keenly the deficit notion of 'minding' children, Murray, 2013). As space became striated the kitchen becoming a conduit to move children through the spaces where 'space is striated, by walls, enclosures, and roads between enclosures' (Deleuze and Guattari, 1987: 444). Furthermore, the allocation of certain activities to each space stabilized the expression and content fixing its meaning and purpose. This fixity linked space to the EYFS and allowed a certain level of control over how Early Years Teachers and children utilised space. Even though the State seeks to striate and control space there is 'still a need for fixed paths in well-defined directions, which restrict speed, regulate circulation, relativize movement, and measure in detail the relative movements of the subjects and objects' (Deleuze and Guattari, 1987: 449). The fixity of space becomes more important when operating an ECEC setting in domestic premises. Sarah needed to meet the demands and requirements of an Ofsted 'outstanding' setting (Ofsted, 2015), a requirement she had met following past inspections. Furthermore, juxtaposed against the business, the need to maintain a family home environment was also paramount to her.

Shared childminder spaces

Sarah also discussed shared spaces between her two colleagues who were part of her network. The three of them worked together, this mutually convenient arrangement allowed them to share

responsibilities for planning, resourcing and hosting each other with their respective children (c.f. quality and professional legitimacy as a reaction to any perceived deficit notion, Fenech and Sumsion, 2007). Sarah discusses the arrangement:

you embrace the styles of different child-minders, because I'm very, I have to have everything prepared in advance, Kim is much more spontaneous so I would ring her in the morning and say "What do you want me to bring? Do you need me to bring anything?" and one time it was dinosaurs and she said, "Oh I don't know what I'm going to do." And by the time I'd got there she had put an Active World tray under her dining table with a blow-up dinosaur on it which was two feet high, she had made eggs out of balloons, and numbered them, and she'd put dinosaur footprints through the kitchen, so they had to get the eggs, oh no, follow the number sequence to find the eggs, and match up the numbers and the eggs to the footprints. And this was all in about half an hour. Now I couldn't do that but that's, you know, I would have had to have thought of that in advance and planned it and blown it all up the night before but that's a different style. And you sort of complement each other and then Amanda, another advantage of it is like going to Amanda's house she's got this fantastic mud garden which is about 6 metres by 6 metres in the corner under the shade of a tree with a big digger and a big cement mixer (interview 2).

It is interesting how shared space disturbs the dynamics which occur between Early Years Teachers. Sarah discussed the differences between her, Kim and Amanda and makes links to wider material engagements. In one instance Kim is able to spontaneously plan an activity which is set up ready for Sarah when she visits with the children. Sarah reflects on the garden space that Amanda has and the mud kitchen that is on offer in the back garden. These connections with materials, balloon-dinosaur eggs, dinosaur footprints, mud, diggers and cement mixers offer encounters with the material world which smooth the space. Pacini-Ketchabaw *et al.* ponder on 'a moment of meeting, where things and forces and human and nonhuman being come together in spaces of difference' (2016: 34). It is within these encounters that movements occur and bodies may decide to 'follow, join with, intervene, provoke, perhaps work with' (Pacini-Ketchabaw *et al.* 2016: 34). The encounters described by Sarah, although in different spatio-temporal registers, are connected and relational and detail the shared spaces the Early Years Teachers inhabit. Deleuze and Guattari (1987) use music as a way of exemplifying the relationship between striated and smooth space. The Sarah-Kim-Amanda movement-encounters with materiality reflects the development of a melody of their (inter)(intra)action; striated 'intertwines fixed and variable elements...organizes horizontal melodic lines and vertical harmonic planes' (Deleuze and Guattari, 1987: 556) and smooth 'the fusion of harmony

and melody...the pure act of the drawing of a diagonal across the vertical and horizontal' (Deleuze and Guattari, 1987: 556).

Childminder encounters with space

Thinking with (an)archival principals I have explored how movements of becoming minoritarian/minor gesture can (re)turn how houses and shared spaces influence humans in child-minder movement-encounters. Space becomes a body and each room in her home allocated for child minding is connected by pathways. Deleuze and Guattari (1987) noted how strata sediment the form and expression of spaces (assemblages) and note that spaces are enclosed by boundaries (wall's in Sarah's home) reminding us there is still a need for fixity and well-worn paths within and between spaces. This links to control societies and the EYFS where providers are expected to ensure that the safeguarding and welfare requirements are met in settings. Furthermore, I have explored different spaces which allow for new micro-political earthworm processes to occur in Sarah's home and within and between Sarah, Amanda, and Kim. The tension between becoming-professional and being-teacher is palpable and has been posited against the historical images of child-minders. The need to enact certain aspects of policy is strong as a self-employed lone worker is at the mercy of the market as parents make choices based on need and child-minder reputation. The disturbances are earthworm figurations for expected meta-narratives of policy and practice with regards to children's learning and development in a range of ways; from connecting EYFS areas of learning to moving children's learning forwards to meet expected goals. Where striations are revealed it is clear they are an intrinsic part of the need for a lone worker to meet curricula (EYFS, 2014a) and Ofsted (Ofsted, 2015) requirements to allow Sarah's business to thrive. Moreover, the shared spaces between three child-minders within their own network have been (de)compo(s)(t)ed. These material encounters allow movement-encounters to develop and all three of them choose to enmesh with each other to share the positives and challenges of being a lone worker. These movement-encounters have been theorised as a melodic and harmonic engagement of the smooth and striated as bodies are in more-than-human relations.

Outdoor Spaces

In this next section I will consider the Early Years Teachers entanglement with outdoor spaces. The EYFS only mentions outdoors in two places, the first is with regards to safety within the

outdoor space which needed to be ‘fit for purpose and suitable for the age of the children cared for and the activities provided on the premises’ (DfE, 2014a: 27). The second occurrence is with respect to the teaching and learning experience where ‘providers must provide access to an outdoor play area or, if that is not possible, ensure that outdoor activities are planned and taken on a daily basis’ (DfE, 2014a: 28). The caveat to this statement is that going outdoors is not required if circumstance make this inappropriate and it cites unsafe weather as a possible reason. These two policy statements alone segment and striate the outdoor space as one of planned safe teaching experiences where health and safety are paramount. However, there is a body of work from the Common World Childhoods Research Collective which reconceptualizes and composites outdoor spaces and places (for example Taylor, 2013; Common Worlds, 2016; Sommerville and Bodkin, 2016; Rautio *et al.*, 2017). This interdisciplinary team are concerned with a child’s relations with the more-than-human world, including relations with space, place and materials. The striated space of policy enactment in England jars against the smoothing of the space the Common Worlds Collective explore. In this section I will draw on the themes and ethos of the Common World Childhoods Research Collective and make further links between being-teacher becoming-professional in an English ECEC context.

Gardens

Holey Montessori garden spaces

Here I become entangled with nursery gardens where affect and flow regulated striated and released smooth spaces. Moreover, I theorised transitional garden spaces as holey space (Deleuze and Guattari, 1987) or blurred space which notes the interplay between smooth and striated forms. Rose was based in a pack away setting in a local village hall. They were able to access the garden space, which was fenced in and at the back of the hall, being reached by a short corridor. The distance of the garden from the classroom meant that the children were either all inside or all outside due to EYFS ratio requirements and ease of access. Here I witnessed the hallway as a site of transition and relay between the indoor and outdoor spaces (figure 10). The point of transition between the two spaces was always a challenge in the setting as Rose and the staff needed to support the children to get dressed for the outdoor area. During the times I visited the weather was changeable this meant children were dressed in wet weather suits which were worn over their clothes and wellington boots as the weather conditions had rendered much of the garden space muddy. Rose reflects on these transitions:

They all get, like usually they're quite independent in the classroom, and they can help themselves to their activities and things. But when you go in the hall they all want help all at once... So yes, that's a hard part of the day... we have to wait before we, to go out anyway, we have to collect, make sure we have to have the right ratios to children if someone goes outside with the ones that are ready but yeah, it's just chaos... they all like suddenly become really helpless, even like the ones you know that can actually do their stuff up, suddenly they can't do anything and they may as well be like jellyfish trying to put their wet suits on (interview 2).

Figure 10 The hallway and the garden



Theorising fish-becomings in holey space

This excerpt reveals a line of flight and a new ethics of encounter between the hallway as transitional space, the classroom, the garden and the children. The vitality and agency of the classroom, as part of the Montessori territorial assemblage, encourages independence and self-reflection on learning with this linear process being a product of the striated space. Furthermore, children becoming-jellyfish saw a disturbing and smoothing of the space as Rose tries to squeeze immobile floppy limbs into wetsuits. Deleuze and Guattari (1987) propose holey space as the border between striated and smooth space. Holey space is not fully independent of smooth-striated encounters but has a level of organization at this transition zone. Hantel describes holey space as 'the intermediate and ambivalent subsoil in and through which apparatuses of capture struggle with nomadic assemblages' (2012: n.p.). I argue becoming-jellyfish sees the children on the borders of striated classroom space and smoother garden space as they flap around in seemingly helpless movement/moments. In this excerpt, it is easy to sense

the tensions of the EYFS ratio requirements and the need to corral and dress the children, a large group in a small space, in preparation for the move to the garden.

The fish metaphor was apparent in multiple incarnations in Rose's data; the big hall parachute game (I saw children lying on the floor in asymmetric rows where each child's head was next to adjacent child's feet and I imagined children like sardines in a tin); the transition zone between classroom and garden with children becoming-jellyfish; a music workshop which I observed on the third visit where part of the soundscape was a fish themed segment; Rose had a puffer fish nest pattern picture for inspiration in her reflective diary (below left). The fish is a becoming-minoritarian/minor gesture point of departure and a new diffractive way to (re)view human and non-human anarchival relations. Haraway debates how tentacular thinking allows connections to be revealed 'the tentacular ones make attachments and detachments; they make cuts and knots; they entwine' (2016: 31) and thinking-with-tentacles connect the fish as point of departure.

Figure 11 Puffer fish nests



Aerating and disturbing this theorisation sees the foreshore as a space between the tidal range and the land, it becomes a place for foraging and mass stranding's of sea creatures. Becoming-jellyfish sees children stranded on/in the foreshore/hallway space waiting for the tide to return/door to garden to open to release them. Alternatively, I turn to the behaviour of cetaceous mammals (for example dolphins) who circle their prey, generally a school of fish, and use bubble bursts to disorient, stun and control them (Fertl and Wilson: 1997). Rose-as-dolphin surrounds the children to support them to dress for the outdoors, with children waiting on the mat before the garden door is opened. In becoming-jellyfish the space becomes the control modulation where affect engenders the children, in Rose-as-dolphin the space and the mat see Rose as the control modulation.

School Gardens

The outdoor areas for Hannah were part of the wider school environment. The playground for the whole school was a big garden space at the back of the school premises. There were a number of grassed areas and a climbing frame which all children could access. Furthermore, there was also a garden plot with raised beds and a growing area which children could visit during break times and they could join a gardening club if they wished to become more engaged with growing. There was a specific area which was only used by the younger children known as 'The Dell', it had a sunken area with a folly (known as 'The Temple') and a shrubbed area. Hannah described 'The Dell' in the excerpt below:

Yes, it is like a little magical secret garden and it's kind of dark and damp, and like all the bark chipping on the floor and all the sort of leaves left all over the floor, it is just a magical little, it's like the sort of things you read in books when you were little, *The Secret Garden*, and it takes you back into that real, in touch with nature kind of side of things (interview 2).

The school garden space can be reconfigured as a territory which included sport facilities, places for growing, places for playing and places for gathering. These places set the content and expression of the territory as a space where humans and non-humans could meet and mingle. These more-than-human encounters set the expectation of the relational space which could be experienced as striations where forces and flows were coded to perpetuate different functions for the space. 'The Dell' described by Hannah is a section of 'manicured' wilderness that smoothed the striations of the remainder of the garden. I have entitled it 'manicured' as it appeared as a small stone folly in a naturalized patch of garden but had been designed as such when the school was converted. The smoothing of this space had an affective and emotional response in Hannah as she recounted books she had read in her own childhood to discuss the space. In this moment 'The Dell' is an anarchival sensation, a moment of remembering which brings Hannah's virtual past and actualizes childhood memories in new recollections. In 'The Dell' there were collections of shrubs and on my visits children played behind these as if using the shrubs as a shield, possibly giving them more privacy during break/lunch times. I argue these more private spaces are an example of becoming-professional and provide a counter movement to the potential colonization and control modulations of the garden-as-learning-space. Furthermore, these observations left me thinking about the affective entanglements and the vitality and vibrancy of 'The Dell' and how these inter-relationships saw the agency of 'The Dell' aerated and distributed across wider historical assemblages which include the children and Hannah.

Play and garden spaces

One aspect I found very interesting was Hannah's feelings on how the children perceived the different outdoor spaces (c.f. the critically reflective professional, Whalley, 2011). The outdoor garden space revealed a different ethics of encounter of how spaces are used by humans and non-humans. The children accessed the school playground at break and lunch times and would mingle with all other children in the school (Reception to Year 6). These times were supervised by teaching staff but there were no planned teaching opportunities. The children also had forest school sessions within the school where activities would occur:

So down the far end behind the building you can see is the fire pit? So, they go down there and they roast marshmallows and they make popcorn and then they sort of make mud panes¹⁶ and those sorts of things, so again in their mind I don't think they see that as play. It is adult led, in their mind, although it's a really wonderful and exciting thing to do and they love it, yes, but I don't think they would distinguish it as play. But I guess it's got rules hasn't it, it's got a lot of strict constraints, down to the way you sit and where you move and when you move (interview 2).

What is particularly interesting in these discussions is the notion how the spaces change their vitality depending on their usage. The agentic garden assemblage (re)turns garden affect and this influences how children perceive play. This fits with the school model where segmented learning spaces are an enactment of policy and play is confined to break times and lunch times. As previously discussed the school garden space is territorialized by/territorializes the activities which occur within the garden (page 127). Forest school sessions occur as part of the curricula time and due to the use of the fire pit reflect a further territorialization and striation of the space required for safety reasons. This results in the forest school sessions becoming overcoded with (necessary) rules and although the sessions were enjoyed, these rules and the fact the sessions are in curricula time, are not seen as 'play'. Drawing on Ahmed (2010), spaces also orient bodies to feel/behave in different ways. The forest school and fire pit become enmeshed with curricula prerogatives becoming a modulation of control supporting learning apparatuses. The sediments of the EYFS, school expectations and types of outdoor entanglements on offer have an affective response in the children who define certain types of outdoor play as an extension of indoor learning. This mirrors the expectation of policy, where the role of the outdoor

¹⁶ Mud panes are mud/clay sculptures made by children in a forest school session – they can take the form of faces or other motifs and are sometimes stuck to trees to mark children's spaces.

environment is to encourage and promote learning and planned purposeful play. The affect and disturbance of the materials in the school garden enact being-teacher and play on offer territorialize the children's perceived feeling about play outdoors – there is no difference between indoor and outdoor play and learning. 'Play' time is a movement of becoming-professional and becoming-minoritarian/minor gesture which is an anarchival relay into child-directed moments seeking a renewed ethical encounter as a micro-political engagement where children are free to use the space without the curricula constraints.

Blurred spaces in a childminders garden

Gardens as curriculum

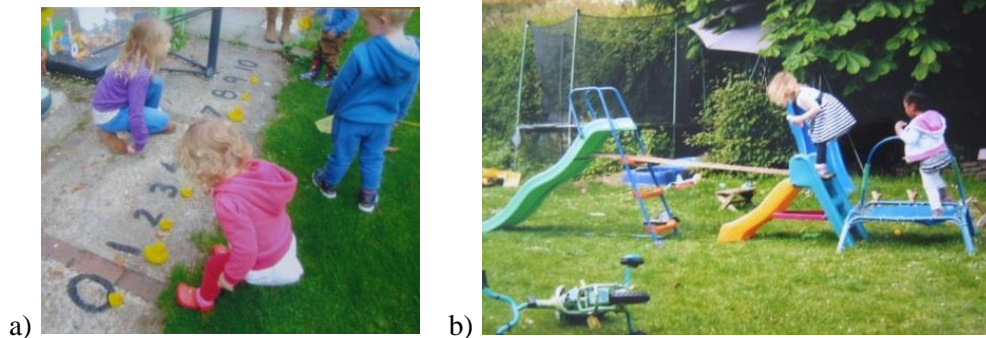
As a child-minder in her own home Sarah discussed how she was particularly lucky to have a large garden space that the children could explore. She considered that as a lone worker it became hard to have a free-flow arrangement between the indoor and outdoor spaces due to the EYFS health and safety and ratio requirements.¹⁷ The added benefit of working in a small child-minder cluster with Kim and Amanda was that when they brought the respective children to each other's houses then the garden could be open access. Additionally, in interview 1, Sarah discussed how the outdoor space is similar to a pack away setting as she sets up the garden for the relevant activities, for example, one instance it may be for maths, on another time for an assault course. The excerpt below considers how Sarah used her garden space:

as the weather gets warmer, so this time of year I would start to use it... so just eating outside, crafts outside, sport outside, singing outside, activities outside. I did work experience at a forest school, not that the garden is like a forest school but the forest school ethos of everything outside no matter what weather, no it's not that at all. I'm afraid we are not that, I'm not that hard-core with it is all but I do think I have been very lucky that I had a large garden space and that I have been able to do that which has been

¹⁷ The statutory adult to child ratio is – under 2 years old one adult to every three children, 2 years to 3 years one adult to every four children for 3 years old and above one adult to every thirteen children (unless there is no Early Years Teacher then the ratio is one adult to every eight children) (DfE, 2014a). In this context, free-flow play is with regards to children having simultaneous access to both indoors and outdoors and their ability to access these spaces by their own free will. It should not be confused with Tina Bruce's (1991) definition of free-flow play.

great. Yes, and I think that what's interesting is anything that you can do inside you have to say why can't you do this outside (interview 2).

Figure 12 The garden a) maths b) assault course



In this instance the garden is being used as a curricula space as detailed in the EYFS where activities which are available indoors are replicated outdoors. The valorising of the garden spaces as a space-for-learning fits the archival proposition of education for human capital purposes and questions how the anarchieve might be activated with different registers of performance being revealed as ethico-political encounters. I observed this during my third visit when Sarah had set up a range of activities linked to floating and sinking where she had different sized blocks of ice with plastic sea creatures inside. The children played in a water tray under a gazebo trying to break open this ice to reveal the creatures. In this material encounter with ice and sea creatures learning was manifested to support the children to understand aspects of the physical world. However, the striated space can be seen as a necessity, Sarah in her role as child-minder is always already saturated with the expectations of parents who pay for their children's care (c.f. hybrid pedagogue/teacher role, Whalley, 2011). Furthermore, the curricula and regulatory requirements encourage this kind of professional practice. Here being-teacher is the expected mode of enactment as curricula, children and learning requirements collide.

Blurred lost spaces

However, there are opportunities for space to become smoothed as Sarah discusses how children use the garden space:

sometimes they can be a little bit lost if they go out on the garden...but they will wander off and potter off by themselves much more in the garden. My climbing frame, before my horse chestnut tree was taken down, was like that because it was sort of buried in the tree because it was so overgrown around it they'd sort of go up and climb in there. You know it was a little space, and also there was a pathway before the horse chestnut went behind the plants and encouraging them to explore that and to find spaces (interview 2, see figure 12b and 13).

Getting lost in the garden disturbs the performance which is enacted as part of an archive. The agency and the vibrancy of the lost garden spaces see affect generating difference conditions of possibility for children. The image in figure 13 sees the blurring of the girl at the top of the slide. Part of the rationale for this was an ethic of care so as not to show the child's face. However, I argue what was generated by this blurring is a new way to view the blurred garden as an anarchical space which decolonises the garden-as-learning-space striations and sees potentials for new relations of getting lost in the garden where different affects and feelings can be produced. Sarah acknowledges this during her interview and engenders becoming-professional as blurred space is smoother with limited curricula prerogatives.

Figure 13 The slide and the horse chestnut tree



The smoothing of the space allows children to find and become enveloped in pockets of lost space. In these enclosures space takes on a more haptic form where more than visual encounters could emerge. As Deleuze and Guattari suggest 'Smooth is both the object of a close

vision par excellence and the element of a haptic space (which may be as much visual or auditory as tactile)' (1987: 572). These garden entanglements become a sensory event-encounter where the light becomes dappled at the top of the slide, sound is muted by the vegetation and leaves and stems are brushed past by bodies and the vibrancy produced by these spaces encouraged children to become enmeshed and lost in them. It almost becomes possible to feel the dappled light, hear sounds of the breeze and feel sensations of the branches as you view the image of the slide and the horse chestnut tree. Making enclosures smooths the curricula space and acknowledges that humans sometimes need to use the outdoor space differently as blurred lost space.

Afterword – Gardens

In this section I have explored and disturbed the influence of nursery gardens in ECEC settings and the encounters and relationships which occur within them. The EYFS is clear in its requirements for ECEC settings to use their garden spaces as extensions for learning opportunities and this has been supported by a range of literature around experiences outdoors (for example see Knight, 2013). Using the concepts of smooth and striated spaces (Deleuze and Guattari, 1987) I have con(cept)(text)ualized the garden spaces as sites of striated space where ECEC settings and Early Years Teachers being-teacher are able to meet their curricula needs reproducing the dominant expectations of the meta-narratives of policy and expected practice. Regardless of the Early Years Teachers location the spaces are used in similar ways 'the tighter the striation, the more homogenous the space tends to become' (Deleuze and Guattari, 1987: 566). The affects/effects of these repetitions are those of representing the nursery garden as an extension of learning spaces which colonises the space and blurs the boundaries of the classroom and the garden as expected in policy and practice.

The data revealed that the outdoor spaces which were offered by ECEC settings were striated in similar ways to the classrooms. The EYFS framework only discusses outdoors with regards to health and safety and the need for learning experiences to reflect those on offer in the classroom. This provides a paradoxical situation which could allow for smoother more suppler space as there is limited direction on how gardens and outdoor spaces should be used in policy. For the settings in this inquiry outdoor space was striated by the curricula in a range of ways, however, it did allow for different ethics of encounter. Becoming-minoritarian/minor gesture can be an anarchival relay to activate different ethico-political earthworm encounters in space which disturb and smooth its co-related entanglements. Deleuze and Guattari consider how smooth space 'is constituted by and accumulation of proximities, and each accumulation defines

a *zone of indiscernibility* proper to “becoming” (1987: 566 emphasis in original). I argue that the examples of becoming-professional highlighted explore and reveal new modes of existence and engagement. It is at these points of becoming that lines of flight reveal becoming-minoritarian/minor gesture as micro-political engagements with space and that the percepts and affects of the event are no longer conceptualized as self, but more-than-self, an opening up to the materialities in the garden space. I theorise the tentacular connections between classrooms and garden spaces see revealing the hallway as holey space (Deleuze and Guattari, 1987; Mantel, 2012) which generated Rose and children’s ‘helplessness’ on the borders of smooth and striated space. Moreover, the vitality of ‘The Dell’ is revealed with historical remembering activating new actualizations for Hannah and the (de)colonisation of the space was explored. Finally, blurred lost space gave rise to haptic movements/moments with trees and slides in Sarah’s garden.

Forests

This section sees me explore the outdoor environment which is not constrained by the EYFS. Here I argue spaces are smoothed as the EYFS influence is lessened, revealing different generative entanglements. Prior to being a nanny Claire had worked in a forest school environment and part of her entrepreneurial work was a ‘pop up’ mud kitchen and outdoor activities which she ran at local festivals; she now chose to work outside of the EYFS. In our discussions, she detailed ‘One of the reasons I do this is my Mum and Dad they were great outdoors people and walked everywhere. They took us out every week and we went everywhere, walking and camping. I am sure this is where my love of the outdoors comes from and why I feel hemmed in if I am not outdoors!’ (interview 2) (c.f. where professionals cannot conform to expected norms they leave the profession, Simpson, 2010). In the following encounters I detail how removal from curricula framing provides an intensity that generates greater smoothing of space which reveals new movement-encounters of becoming-minoritarian/minor gesture.

Becoming-superhero

The first visit was to a woodland area which was part of a Benedictine Abbey. Here the children were pulled to the woodlands by Claire in a small handcart. The woods were close to one of the children’s homes and Claire and the children had been there before we met. As we arrived at the

woodland the children left the handcart as they ran down the path chatting and laughing as they went. Claire explained that they came to this site regularly and knew where they were going (figure 14). The excerpt is from the observation notes taken at the time of the visit:

The children decided to take off their coats as they had warmed up and were both dressed in skeleton costumes... They talked about the superpowers that they had James had 'punching batman', Aiko had 'electricity Spiderman' and Claire had 'flying powers'... The children ran over to a man-made wooden lookout/den and looked out, there was a viewing window and number of seats...'Ahh there might be giants' squealed the children, they hugged each other. Claire held her fingers to her eye like binoculars 'shall we see what the special powers are?' she asked. James 'I am spider boy', Aiko 'I am spider girl' they both ran around playing spider boy/girl and holding back their hands as if to shoot webs making a whoosh noise as they did this... The children are spider boy/girl whooshing their webs at us as they run, we join in and become superheroes too, Claire says 'you are using powerful spells on us!'. As we move down on the right-hand side there is a willow house, there were sawn logs for the people to sit on in a circle in the willow house with one in the middle of the circle. Claire asks 'Who lives here? – maybe a badger!' they sit on the log seats and Claire sees a hole under one of the logs 'eee, eee a mouse' said James, 'A baby owl!' said Aiko...'There are lots of superheroes and witches here! They are going to eat you for dinner!' said Claire 'Fee, Fi Fo Fum!' as she chases them, the children pick up sticks for swords and they run away laughing and giggling. The stick/swords turn into magic wands. Aiko 'this is my magic wand' she says as she points the wand at us going 'tsssssh' as she casts a spell on us (observation 1).

The forest encounter is an earthworm entanglement with smooth space and the vitality of the space sees anarchival responses in Claire and the children. However, when humans explore these smoother spaces Lorraine (2005) counsels that we need to do more than just open ourselves to the relationality of the space but need to be mindful of the generative possibilities by being open to affective responses to/from these spaces. I argue that the forest activates new conditions of possibility where becoming-superheroes are the point of departure in this excerpt. Scholars (see Viveiros de Castro, 2004; Kohn, 2013) have explored Indigenous ontologies of animism as a means of reimagining the nature: culture binary. Animism is a decolonial critique of thinking the nature: culture binary which enables human, non-human and more-than-human relational dialogues where in many cases humans and animals share a metaphysical connection. Although these theories could be seen as transcendent and more phenomenological in nature I

argue they can allow a renewed view of forests entangling children as superheroes in an animistic dance.

Figure 14 The woods a) whooshing b) the willow house c) forest creatures



The forest-as-woodland-walk disturbs and aerates the movement and sound of superheroes, superpowers and skeleton suits. The ‘whoosh’ of spider webs and the ‘tssssh’ of magic wands fills the woodland walk. Included within the woodland-superhero assemblage are trees and associated plants, paths, sticks, Claire, and the children co-constituting the relationships. At the bottom of the path there is a new encounter with a stream and they stop for a time to hunt for creatures in the pipe which takes the stream under a pathway. They throw stones in the stream both sides of the path and try to reunite ‘Stick Man’ (a man shaped stick) with his ‘Stick Family’. Here I agree with Taylor (2013), the engagement with nature does not provide a utopic pure view of children and teachers in the forest as the games they all play are

superheroes-running-throwing. The teacher: child couple in this excerpt are shaped by what Taylor (2013) calls idiosyncratic geo-historical connections where nature and culture collide. The nature element is the enmeshed relations in the woodland and the culture influences are a range of superheroes which co-combine where events are freed from regulation and normative expectations (Lorraine, 2005). The deterritorialized space is far removed from the striations of curricula expectations as the enchanted forest produces the teacher-child-superhero hybrids as Claire becoming-professional allows the children to explore, joining in the game with them at relevant junctures.

Beaches and the Dragon Tree

Beach encounters

The beach and the Dragon Tree had been selected by the children for my second visit. Whilst at the beach a walk along the shore had highlighted a large wooden pallet which Claire and the children dragged back to a small stream that bisected the beach, the pallet was used to form a bridge. This pallet bridge made an earthworm rhizomatic vibratory connection to a man-made bridge further upstream which became a site for fishing and playing troll games (figure 15b). In this encounter I argue bridges release becoming-minoritarian/minor gesture as the pallet bridge became the means to traverse the stream unaided and the affect released by the pallet bridge gave the children a wider independence as they played near the stream's mouth (figure 15a). The eddies and flows of the stream produced a diffracted current where the water speeded up and slowed down. It was into these eddies that the children threw stones and made cuttlefish boats to float on the current. The speeding up and slowing down of the stream connected to the way the children engaged with the materiality of the beach.

Lenz Taguchi (2010) conceptualizes slowing work with children as 'circular' movements and speeding up a 'horizontal' movements. She details speeding up 'horizontal' movements as a means/affect/effect of smoothing space and that these can occur 'right in the middle of the event in-between a child and a material process of experimentation' (Lenz Taguchi, 2010: 99). Beach spaces-encounters are 'circular' as Claire ensures the children are safe in their play in this ephemeral moment Claire is being-teacher as she ensure the safety of James and Aiko. For example, a bridge across a fast moving and deep stream which would have proved unsafe to traverse without it produced 'circular' striations. Furthermore, movement is also 'horizontal' as space is smoothed by material engagements where at the troll fishing bridge (figure 15b) the children used found pieces of rope to haul up gold and treasure onto the bridge and Claire-as-

troll was also ‘hailed’ onto the bridge. Finally, the children fossicked around for found objects and made boats from driftwood, mud and bottle tops which they floated on the current towards the sea (figure 15c).

Figure 15 Bridges a) pallet bridge b) troll fishing bridge



These images show how the beach location is agentic and affects how Claire and the children becoming-with-objects in each encounter, with the pallet bridge, with the troll bridge, with the driftwood boats presented an anarchival relay, a nomadic disturbance and intensification of the smoother space. At some points spatio-temporal slowing down is revealed as human and stones form an assemblage with fast-moving eddies of the stream with ‘circular’

movements striating space to ensure children are safe on the stream's bank, sometimes speeding up again and the human-boats assemblage is aerated in calmer water within smoother space. Claire-as-nomad is exemplified by the comment 'with the nomad...it is deterritorialization that constitutes the relations with the earth...It is the earth that deterritorializes itself, in a way that provides the nomad with a territory' (Deleuze and Guattari, 1987: 445). Haghighi reminds us that encounters are 'constantly cutting across bodies, modifying and rearranging them, and bodies always interfere...slowing down or speeding up their production' (2002: 138). Within the beach encounters I theorise Claire and the children are an example of body-movement more-than-human encounters with the material world.

Claire no longer works with the EYFS curricula framework. We discussed why this was not the case, Claire responded:

I don't use the EYFS no, when I worked in settings and schools I did use the EYFS. I don't use it as I find it too restrictive – I saw people who were using it were bogged down with the paperwork it required – all they seemed to do was piles and piles of observations. I know these two children really well, I don't need the EYFS to tell me anything about their development. For me it is more important that they grow up to be lovely people and to make the most of all the experiences that come their way – that's the main point of growing up! I think that the memories and experiences that children have are more important. I needed to do the EYFS for my course but I know it was not for me. I know how these children have developed...They are [*the children*] far advanced maybe not in their reading and writing but they are in their understanding of nature and understanding of the world (interview 2).

In this excerpt the EYFS is a territorial refrain that colonises expected meta-narratives of professional practice. The molar aggregates of observation, assessment and planning which form the strata of the EYFS and the resultant affect which restricted Claire. It is interesting as even though Claire has removed herself from the traditional ECEC settings she still feels the need to justify her practice. In this moment of being-teacher the modulation for lack of reading and writing skills is countered by the children's wider engagement with the natural world. Both these areas are covered within the EYFS so Claire's professionalism is driven by an enactment of practice even though it is not a policy requirement for her. The current space that contained Claire is a disturbance and juxtapositional space as she notes children are learning with her, but in her view, their learning is organic and did not have the limitations which she felt were present in the EYFS. Removed from the EYFS is a decolonising earthworm movement of becoming-minoritarian/minor gesture. Claire is able to make the choice where she works and lines of flight

have taken her away from traditional nursery practice as Deleuze and Guattari (1987: 444) suggest ‘nomads have no points, paths or lands, even though they do by all appearance’.

Dragon Tree encounters

The Dragon Tree was a place the children chose to visit often and was part of a local legend about a knight who died protecting the nearby village from a dragon (figure 16). In the legend when the dragon was killed its body took the form of a tree. When the tree is viewed, there is a branch which resembles the dragon’s open mouth (see arrow). I argue the affect and the vitality of the local legend and the visual appearance of the tree intensified the actualization of new potentia each time the children visit. The entanglement with the Dragon Tree encouraged the children to climb up the banks and paddle in the stream that ran underneath the tree. They were helped by Claire to swing on a rope swing which had been tied to one of the branches and had a snack sitting across one of the lower branches as if it were a horse and they were the knight sent to slay the dragon.

Figure 16 The Dragon Tree



The Dragon Tree agitated and smoothed space as the children became part of its history and its history becomes part of them. In the Dragon Tree encounter spatio-temporal material engagements with duration allows children to produce new versions of themselves and as Lenz Taguchi details ‘every repetition we make of ourselves there is a new version of what was before that differentiates itself from the past, but contains and transforms it at the same time’ (2010: 95). In this excerpt I theorise becoming-with dragon tree as an earthworm rhizome, where the affect and orientation of the tree encourage the children to challenge themselves when

climbing, swinging, exploring the river and eating as a snack-knight-slaying-dragon. They become-with the tree as the zone of indiscernibility between their bodies and the tree sees the children become part of its current and past history.

Curricula nomads

What this and the previous excerpts (page 138) I have shown is that Claire is not part of the curricula strata of the EYFS and the molar sedimented body of ECEC practice. Claire had removed herself from the EYFS as she felt it was an instrument that striated her practice beyond what she felt was acceptable. I have theorised her movement as absolute rather than relative and these lines of flight afforded her a very different relationship with human and non-human worlds. Her being-teacher was a temporal encounter which happened in the past when she worked in schools and nurseries and attained Early Years Teacher Status (EYTS), however, it still appears momentarily when she feels the need to justify the children's development. It is in these temporal locations that modulations and stratification took place. Forests and beaches were sites of encounter where superheroes and woodland walks reanimated connections with streams, stone throwing and hunts for stick man and his stick family. I employed the work of Taylor (2013) and anthropological scholars (Viveiros de Castro, 2004; Kohn, 2013) to consider a queering of the nature culture divide and animistic relations which revel in deterritorialized smooth non-curricula space. Furthermore, the beach and the Dragon Tree were conceptualized using the work of Lenz Taguchi (2010) who detailed circular and horizontal movement-encounters which aerated and disturbed and acted as earthworms to smooth the spaces. The anarchival movement of becoming-minoritarian/minor gesture sees Claire-as-earthworm becoming-professional; a vector of deterritorialization as she embraces the multiple roles of nanny and entrepreneur detailing 'I wonder sometimes as I have EYTS but I am 'just' a nanny. I must be the most overqualified nanny but I just love doing this and working with the children'. However, this is juxtaposed against the need for employment which does territorialize her as part of her wider justification of aspects of practice. I argue that Claire has found and generated patches of smooth space in her work with children and the locations she visits affect her work and allow her/it to smooth the space further.

Continuation

Earthworm disturbances in space

In this chapter I have paid attention to the concepts of earthworm disturbances, the archive and the anarchive (SenseLab, 2016) while working with the proposition ‘practice entangling with Early Years Teacher assemblages’. The archive within this chapter has allowed me to explore spaces inhabited by humans and non-humans in more-than-human relations. I have argued it is important to note that space is not just a container of things and events, it is more than that. Space is an activator of potentia and a co-relational component of the assemblage with things in relation to space conceptualized as vibrant vital matter (Bennett, 2010). I have shown that spatio-temporal assemblages see material agency distributed across humans and non-humans in more-than-human entanglements. Moreover, I argue these more-than-human relations move beyond the segmented modulated teacher and reveal a subjectivity which is enriched with material relations. Massumi details the anarchive is a repository of traces, the feed forward for ‘lines of creative processes’ (2016: 6). I have revealed that the anarchive is a vehicle of earthworm potential which activates past, current and future more-than-human happenings and have theorised these movements as becoming-minoritarian/minor gesture. Furthermore, I argue that these earthworm moments can be seen as clinical practice which allows alternative positions to the meta-narratives of policy and expected professional practice.

Smooth, striated and holey space

There are multiple ways of encounters within space which are seen a variety of ethics of encounter, I have used Deleuzo-Guattarian (1987) concepts of territories, smooth, striated and holey space as one way of demonstrating these encounters. Initially it could have been suggested that the use of smooth and striated space might suggest or reveal a binary with striated seen as ‘bad’, for example over coding the space with more formal aspects of teaching and learning. The binary opposite sees smooth space as ‘good’, a chaos space where anarchic movements provide counter actualizations to striated teaching and learning. Lenz Taguchi details how pedagogic space is marked with these striations ‘materialised as habits, routine behaviours, organisations of time, space and material’ (2010: 97). Within ECEC there will always be the need for striated space in classrooms and gardens. I have noted these types of space produce repetitions in practice which are comfort(able)(ing) both for Early Years Teachers and children and can be one way to explore the ethico-political encounters. The need for Early Years Teachers to demonstrate they meet policy and regulatory requirements reveal

how the flux and flows between being-teacher and becoming-professional allow them to validate their status.

Becoming-professional and lines of flight

As the space becomes territorialized forces and bodies work to deterritorialize and smooth the space. In these instances I have documented how becoming-professional reveals a more supple and material engagement with space and with the children within these spaces. Lorraine details ‘we must improvise the rhythms that keep us connected with life without completely deterritorialising from the refrains that sustain our homes’ (2005: 174). Furthermore, I have explored how lines of flight/suppleness allow bodies to disturb and smooth spaces where bodies must pay attention to ‘an infinite succession of linkages and changes in direction’ (Deleuze and Guattari 1987: 574). These ephemeral molecular earthworm micro-political moments detail the flux and flow of the experiences and orientations of Early Years Teachers. Moreover, I have argued that these conditions of possibility are disruptions to the striations which surround them and form a cacophonous ecology of professional practice as the dehumanised teacher find new material ways of becoming more-than-human. Examples of these generative conditions include Hannah and reflections on the garden space, Rose and the mats or becoming-jellyfish in the transitions from the classroom to the gardens, Sarah and her provision of a quiet space at the top of the slide underneath the chestnut tree. Additionally, I have shown how a variety of bodies rhizomatically connect with the teacher: child couplet and absolute movement can be sensed in these interludes. However, diffractive readings can produce unsettling moments as reterritorializations segment relations. This is revealed during Hannah’s experiences in the hairdresser’s salon where a line of flight to the gender expectations of hair or care professionals was theorised. These gendered lines of flight are also engaged with mats; where boys go on bombing raids and girls have picnics and sit on heart motifs. Further neo-liberal segmentarity is seen where children as bee/drone mirror human capital theory and mats become duplicitous pedagogical spaces. These troubling moments explore the consonance of neo-liberalism and Posthumanism in challenging ways.

Diffractive movements/moments

An alternative ethic of encounter has been revealed in the diffractive movements/moments and alternative readings. I argue that these diffractions can be viewed as generative earthworm visions of humans and more-than-human relations. Again, they become an anarchival relay of

becoming-minoritarian/minor gesture which produce new and heterogeneous ways of conceptualizing Early Years Teacher relations-in-the-world. These moments of clinical practice (MacLure, 2015) are alternative ethico-political movements of decolonisation, critique and anti-critique of policy and expected professional practice. Additionally, I have made connections back to more humanist aspects of the Early Years Cartography with regards to the development of the graduate leader and ultimately the Early Years Teacher. I have chosen not to fully analyse the data using this literature and my rationale for this is twofold. The professionalism debate has been well rehearsed by scholars included in the chapter two (page 23 - 50) and turning to this would have focussed my inquiry on a more transcendent human-centred world-view which was not my intention for this thesis. However, these connections have allowed me to further frame the expectations of the dehumanised teacher: child couplet produced through these meta-narratives as needing education to become more productive in the neo-liberal imaging's of the future world.

Paradoxical spaces

There is always a paradox with smooth and striated space and I have engaged with Deleuze and Guattari (1987) to explore how Early Years Teachers and children experience these spaces both separately and relationally in more-than-human entanglements. As Lorraine details 'attuning ourselves to life-as-becoming requires disorientating ourselves from establish spatial norms in order to attend to spaces unfolded in the play of movements' (2005: 174). I have used these encounters to disturb, aerate, (re)turn, unsettle and explore spaces where resultant earthworm movement-encounters have shown a multiplicity of responses as bodies reveal their orientations. The next chapter will engage with further aspects of glow data. The affect, materiality, and engagement with nature within and between assemblages will be explored as the data revealed wider material and more-than-human entanglements.

CHAPTER FIVE:

DATA ENCOUNTERS – ENTANGLEMENTS WITH AFFECT, DESIRE, MATERIALITY, AND NATURE

I want to suggest that qualitative method needs greater attention therefore to that which coding misses – movement, difference, singularity, emergence and the entanglements of matter and language.

Maggie MacLure (2013b: 171)

Introduction - Encounters with more-than-human relations

In the previous chapter I demonstrated how territorial assemblages were formed and the impact these had with respect to striating and smoothing spaces inhabited by Early Years Teachers and children (page 93 -143). In this chapter, I will work with the proposition ‘practice entangling with Early Years Teacher assemblages’ and will continue to build on the notions of becoming-professional and being-teacher as I explore wider Early Years Teacher more-than-human relations. These have been ordered by technology and policy requirements, matter and materiality and the natural world reflecting progression from man-made to natural objects. As an Early Years Teacher, part of my role was observations, assessment and planning for child development and learning. I often wondered whether the child was the focus of these strategies or if policy had become performative (DfE, 2014a). The affect of my re-membling and the EYFS requirements drew me to the online tool, Tapestry. In this chapter I will reveal bodily affect where the EYFS requirements for observations, assessment, and planning orient Early Years Teachers and Tapestry to perform in certain ways. Furthermore, the materiality of ECEC classrooms is a considerable focus in ECEC pedagogy (see Rinaldi, 2006). Therefore, I will consider the emergence of a wider material entanglements with matter and resources in ECEC settings and classrooms. Within this section I draw on Jane Bennett’s notions of ‘thing power’, where researchers are encouraged to mobilize ‘cultivated, patient, sensory attentiveness to non-human forces’ (2010: xiv), and I will explore the ‘voice’ of the material objects. In the previous chapter I explored outdoor spaces as potentially segmented territories (page 124). The outdoor relations explored in this chapter are presented as affective desiring machines connecting with humans and non-humans. Moreover, I will reveal the productive forces and flows of the natural world and how these enmesh Early Years Teachers within environmental assemblages.

Diffraction will be employed as anarchival relays of earthworm disturbances to reveal different ways to think Early Years Teacher relations-in-the-world. I argue these detail earthworm movements/moments as a move against representation and a chance to (re)turn and aerate the soil of expected policy and professional practice meta-narratives.

The areas I explore in this chapter will consider how Early Years Teacher actualizations can reveal new creative productive encounters which have common connectives with each other. As in the previous chapter (pages 93 -143) I will read the theory diffractively through the data, particularly the interview data. In this way, I will highlight theoretical and bodily movements and consider how forces and flows are revealed. Furthermore, I note connections with the more humanist aspects of the literature revealed in chapter two (pages 23 - 50) which became apparent during my reading of the data. Where appropriate the glow data (MacLure, 2013b) will be punctuated with relevant images and excerpts from current ECEC policy as the knots within and between the assemblages are explored. Throughout this thesis I have used the earthworm as a figuration for becoming-minoritarian/minor gesture and will continue to develop this as a point of departure, an in-between, where Early Years Teacher: child: material entanglements are explored. The resultant cartography will highlight how bodies impact on, and are impacted by, Early Years Teachers and the interplay between being-teacher and becoming-professional will be con(cept)(text)ualized. Furthermore, where appropriate, the teacher: child couplets as a zone of transformation will intensify the movements and relationships which are revealed.

Tapestry and affect

In this section I argue that the online tool, Tapestry, which is the means to observe, assess and analyse children's progress to plan for their learning, becomes a modulation which segments the Early Years Teachers. Moreover, I have employed the Deleuzo-Guattarian (1987) concepts of desire and affect as an analytical tool to support this assertion. A core part of implementing curricula frameworks are for Early Years Teachers to engage with observations, assessment and planning activities which support children's learning and development. The EYFS includes guidance on observation, assessment and planning as follows:

Assessment plays an important part in helping parents, carers and practitioners to recognise children's progress, understand their needs, and to plan activities and support... It involves practitioners observing children to understand their level of achievement,

interests and learning styles, and to then shape learning experiences for each child reflecting those observations (DfE, 2014a: 13).

In planning and guiding children's activities, practitioners must reflect on the different ways that children learn and reflect these in their practice (DfE, 2014a: 9).

These comments are transcendent, based on human centred vision of learning which segments space and suggest an appropriate way for Early Years Teachers to work with children. This segmentarity drives contemporary practice where enactment of quality learning environments are underpinned by professional practice and policy. To support quality improvement practitioner texts (such as Brodie, 2013) have been written to encourage an engagement in effective observations, assessment and planning to extend children's development and learning (c.f. quality practice, Sylva *et al.*, 2004; Mathers *et al.*, 2011). Although the EYFS framework does encourage what is entitled the 'characteristics of effective learning' (DfE, 2014a: 9) which include playing and learning, active exploration and critical thinking the language is couched within a more educational, segmented, hierarchical view of children within the ECEC/school/human capital assemblage.

Deleuze affect and desire

Deleuzian affect moves beyond the notion of affect as the embodiment of emotion as it details the capacity of a body to act on another body. Deleuze and Guattari (1987) discuss how relations in movement have corresponding power and these movements of composition, (de)composition and modification impact bodies by either enhancing or diminishing the body's capacity to act. Furthermore, affect takes on an ethical dimension as the capacity of intensive bodies are revealed in connection with other bodies within an assemblage. For example, I have argued that by taking heed of the affective nature of spaces in classrooms (see previous chapter pages 97 - 107) the positions of humans and non-humans can be explored revealing wider impacts on life. These transitional products of encounter are ephemeral and the configuration of things and bodies are temporally mediated in a series of continuous events and becomings.

When examining desire, it is important to decentre this from the idea of a humanist desire (for things or bodies) born out of lack (for something or somebody). For Deleuze and Guattari desire is more than a human need for some kind of fulfilment, and in *Anti-Oedipus* they consider desire can 'engineer partial objects, flows and bodies, and that function of units of production' (Deleuze and Guattari, 1983: 39). In this conception desire is the process of

connections within and between the components of assemblages and is the force that generates these connections. Deleuze and Guattari see ‘desire is a machine, and the object of desire is another machine connected to it’ (1983: 39). The machinic nature of desire then engenders movements of becoming (lines of flight) which reveal further connections between desiring machines occurring *ad infinitum*.

The concepts of affect, desire and becoming are always already interrelated as desiring production allows for connections and becomings and affect occurs when bodies collide or come into contact (become) with each other (Ross, 2010). Furthermore, affect operates as a dynamic of desire within assemblages where it can manipulate meaning and relations, inform and fabricate desire, and generate intensity (Coleman, 2010). The movement of bodies revealed by affect-desire detail the characteristics of the body (Deleuze and Guattari, 1987). Moreover, Manning (2007) sees movement within/between bodies as either relative or absolute. A relative body is separated from the space it inhabits and this disconnection sees the body unchanged (not becoming) in its movement. However, absolute movement sees the body-exist-in-movement, endlessly differentiating and becoming as it connects, affects and is affected where desiring productions and newness is revealed.

Tapestry – observation, assessment and planning

Both Hannah and Rose use an online system called Tapestry to support observations, assessment and planning. It includes functionality to allow observations and photographs to be taken and uploaded, these can then be analysed using the EYFS early learning goals for required age bands. Once this analysis has been completed management reports can be exported which help to track an individual child, or groups of children’s, levels of attainment or gaps in the areas of attainment in the curricula can be revealed. Deleuze (1992) detailed how the use of technology drives modulations to fulfil the requirements of society. I draw on Deleuze as this section troubles modulations which become apparent as Tapestry entangles with Early Years Teachers.

School planning

Planning was an initial focus for Hannah who discusses what is done within the nursery and reception classes of the school:

We plan for every child every week so we have small enough numbers for it not to be a problem; we have 14 on the books at the moment...in the nursery and that's split between 3 key people. They have PPA¹⁸ time together...they discuss things together so one might say I need to do this thing for so and so and the other will say oh yes that will cover me for somebody else and likewise they keep a running list of interests, of children's interests in a book so that when they start their planning each week they can know where everyone is. They have got a set of next steps printed and with them so that they can make a combination of next steps interests and between the two of them create the planning for the week...we have made it more closely tied to the next steps...I know what they need now the next steps are printed all the time and we are looking at a way to getting the next steps on the wall... just so that the most accessible sort of thing that we can know where we are going with the children (interview 2).

In this instance planning becomes a material embodiment of being-teacher. The desiring machine of planning becomes a site for connectivity including forces such as PPA time, observations and a book of children's interests. As these forces coalesce a spatio-temporal assemblage is formed as PPA time becomes the focus of the planning process. The affect generated from this encounter resulted in the production of a planning document of educational activities for the week and this body in turn connected with the EYFS and the zoned space of the classroom. The planning-policy-classroom archival assemblage enmeshed Hannah in the position of being-teacher as the desiring machine of planning drove professional practice to support children's development and learning to meet children's next developmental milestones. Desire and affect intermingle and entwine to produce a living document which in turn makes wider connections to every aspect of the classroom. These connections can be seen as a multiplicity, a tentacular web (Haraway, 2016) which include space-becoming-zoned (see previous chapter pages 98 - 100) and becoming-with-resources to provide an educationally stimulating environment for the children. This seemingly striated space produced by the planning document is perceived by the practitioners as a positive force which allows them to

¹⁸ PPA – preparation, planning and assessment time allocated to teaching staff in a school context. This is a statutory requirement and should equate to a minimum of 10% of the teachers timetabled week (DfES, 2004b)

focus on and keep track of children's development and learning. The necessity of this work is revealed in both policy and texts on professional practice (Brodie, 2013).

Planning as a hub of connections

Drawing on wider bodies and segmentarity seen within the EYFS details how affect flows (in)(on) the borders of the Early Years Teacher-planning connections. In this instance planning is a zone of indiscernibility, a living document which connects with other bodies, and at these connection points it becomes-with further bodies as it influences them. The immanent planning document becomes central in the classroom hub, although initiated by humans it becomes a control modulation as it fills the flat ontological plane. For example, the living planning document is entangled in a number of ways: becoming-with-teacher, it influences and impacts on decisions made during the forthcoming days and weeks; becoming-with-classroom-spaces, it drives the zoning of the learning environments within the classroom; becoming-with-resources determines what material the learning environment contains. The planning document becomes the centre of a hub of connections which radiate circular and linear segments; circular as the becomings surround the central planning hub and linear as they denote the progression in learning. Hannah is a component of these segments, and as such reflects being-teacher within this spatio-temporal assemblage. The suppleness in the circular and linear segments could be reflected in the planning document itself as Hannah details the children are the centre of the planning process and not the curriculum. I would argue that the juxtaposition of an immanent connective planning document and a transcendent human centred response sees relative and absolute movements (Manning, 2007) as becoming-professional and being-teacher are co-implicated.

Montessori planning

Curricula planning is also a requirement for Rose, by contrast her setting does not have PPA time as it is not within a school context. Much of Rose's planning is done in moments allocated to her during the day or at home outside of her working hours:

we have key children each me and Elaine so at the moment I've got ten [*children to plan for*] ...so we do next steps for each child which is kind of like...written down so we're trying out a sheet where we have 3 next steps for each child and then we're marking on that if we just introduced it, if they've progressing or if it's a triangle, we do like a triangle and if it's completed it they will move on...I don't only do stuff from the next

step sheets because I can't, I prefer child-led stuff so I will often do, if they're playing with something and I'm interested in that I will go and sit with them and like engage with them and do stuff on that and then we do observations that we use a web base, Tapestry which is on the website (interview 3).

There are similar forces at work for Rose, where the curriculum is used as a base for planning activities to support children's development. The forces of curriculum, next steps and repetition of expected behaviour (to form the triangle \triangle indicating that learning has been witnessed three times and has been cemented into the child's psyche), give rise to a planning document similar to that described by Hannah. The resultant spatio-temporal assemblage produces a relative movement of planning activities to engage with children, detailing linear segmentarity where children's learning should progress from A to B, being seen three times before being assimilated. Suppleness and molecularity can be revealed within the segments where the teacher: child couple allows for absolute movement to be actualized. Planning-as-body disrupts lines of flight and produces a differentiated encounter and new conditions of possibility. The result of becoming-professional becoming-with-planning sees a change in the nature of 'planned' activities as Rose joins a group of children involved in child-centred play where movement sees planning shift from the physical document to the children's engagement with wider classroom material resources.

Planning (de)compo(s)(t)ing

The (de)compo(s)(t)ing of the planning document presents a move away from the planning positioned and embodied as being-teacher. As the planning (de)composes the stratifications which are plugged into it (written next-steps activities, the triangle \triangle of observations denoting progression, and the curriculum) become less influential. Becoming-minoritarian/minor gesture sees Rose's becoming-professional connected to child-led play within the classroom assemblage and this reveals suppler segments which generate an engagement with a reconstituted unwritten planning document based on the children rather than the curriculum. The desire produced by the initial living planning document is mediated as the affective machinic connections are deterritorialized when the planning (de)composes. These border crossings denote the interplay between planning being-teacher and Rose becoming-professional and the relationship to the wider machinic connections of ECEC policy and expected practice. These ephemeral moments of difference are those of absolute movements which reanimate life in new directions.

Ofsted and becoming-(un)planned

Regulatory requirements produce new affects for Rose which seek to overcode and reterritorialize the relations to a more educationally led expectation:

we haven't had Ofsted, and I don't know, and they probably wouldn't approve of our planning because our planning is kind of like discussion and general themes for the topics ... we don't have like a big planning thing up on the wall or, and we don't need it, we know what we're doing and there's so much stuff out anyway that we do, and if someone wants to play with them they play with them, but some of them would rather play with Playdoh or a train or something! (interview 3).

This excerpt shows that life can take different pathways within the rhizome. The revealing of a new body (Ofsted) connecting to the assemblage, sees a debate about the suitability of the planning on offer (c.f. personal agency and regulatory bodies, Fenech and Sumsion, 2007). This new body seeks to reterritorialize the planning as being-teacher, where linear segments are reflected in a chart of planned activities to be carried out with each child. However, the vibrancy of the classroom environment smooths the affect of the regulatory requirements. Rose details how the environment is well resourced and that these resources allow for becoming-professional by an (un)planning of the document. Becoming-professional becoming-(un)planned is a force of desire which results from the machinic assemblage of classroom space, materials and the teacher: child couplet. The affect of the striated space of the classroom produces a smoothing of the affective response to planning as a feedback loop. Furthermore, becoming minoritarian/minor gesture is disturbed as becoming-professional becoming-(un)planned engages with planning in a different way – children access the resources on offer and the desire flows through the resources and not the planning.

Troubling planning

I have (re)turned and troubled the archive of planning systems generating a wider rhizomatic assemblage encompassing both Hannah and Rose. Moreover, I suggest there were different spatio-temporal entry ways into the rhizome where both exit in new places with the affect of planning on different registers. For Hannah I have noted the change of focus for planning based on the children's interests seeing becoming-professional as a move away from a mechanised curricula-driving-planning approach. Similarly, I reveal how Rose encounters forces of desire as regulatory bodies seek to impact on the way planning is used in her setting. With Rose I argued becoming-professional becoming-(un)planned decentres the affect from Ofsted and the

materiality within the classroom creates new conditions of possibility for (un)planning (c.f. resistance to top down mandates, Oberhuemer, 2005; Miller and Cable, 2011). There is no binarization of the different registers – neither approach to life is right or wrong. They are both actualizations of the desiring production of the EYFS which are differentiated by the spatial separation of the contexts in which they occur. Here I reveal earthworms tunnel and produce a rhizomatic multiplicity of connections where planning and (un)planning connect with wider bodies, where Hannah and Rose becoming-professional and being-teacher are entangled in absolute and relative movements of differentiation and where the striations of professional practice and the influence of bodies such as policy and regulation affect the wider forces within assemblages.

Tapestry assemblages

The next excerpts consider the role the Tapestry system plays and the affect generated by the online nature of the system. During the interviews, there were points where Hannah and Rose make suggestions that Tapestry impacts and controls their and their colleagues' professional practice. Deleuze (1992) ponders the impact of modern culture on circulations of power. Individuals (or 'dividuals') under technological surveillance modulate their own practice to conform to these 'continuous forms of control' (Deleuze, 1992: 3). I argue that the Tapestry system, as a means of control and surveillance, can be considered as a mechanism to regulate and monitor both Early Years Teachers and children as dividuals and this shall be exemplified within the data excerpts. Furthermore, I argue this tool is a mechanism of claiming status of being-teacher as it segments and striates the Early Years Teacher. This neo-liberal de-valorisation of professionalism is a means to recode the teacher and child as productive and pliant (current and future) workers. In the first excerpt Hannah considers how Tapestry is used during planning children's activities:

now we are use the Tapestry snapshot and Tapestry analysis we know if we have not given the children the opportunity in a particular area to show us what they can do, and we can plan, we us the snapshots regularly. Especially this term as it is only a four week term so trying to catch something for everyone, because Tapestry works like that on a half term by half term basis and you just feel a bit bad actually if you have sort of got blanks after a whole term and it doesn't calculate your next term really well, it sort of...pressurises you into capturing...and it does not matter of the child has not made a significant moment of learning in that area you just capture what you do see and it will

just obviously leave the stage at the same point but at least you know you haven't not observed you have just covered your bases (interview 2).

Initially the functions of Tapestry are used to produce management reports by Hannah which detail desiring silences, gaps in the EYFS curriculum, which have not yet been covered. The forces of desire see Tapestry connect and collide with the planning structures already in place and Tapestry seeks to re-actualize the circular and linear segments to ensure the curricula needs are met. Furthermore, the affect produced by these reports sees an embodied Tapestry being-teacher as desire produces the need for further planned activities to complete a full picture of the child's capabilities.

Affective responses to Tapestry

In these excerpts the lack of flexibility of the Tapestry programme to shorter school terms produced an emotional response and modulations in Hannah, who indicated she almost feels deficit in her role as Early Years Teacher. The silences of limited or no observations made within the school term leave the child at the same stage of development as the previous school term. In striated space the line should move from point to point as the children show progression. It could be suggested that Tapestry produces an unforeseen deficit model of being-teacher as it is not flexible to temporal challenges of shorter school terms, or the non-linear nature of child development. There is a suggestion that Hannah may be influenced by not having a significant moment to record during the shorter school term and she considers how practitioners may feel pressured by Tapestry-as-body to upload something to satisfy the need to have progress registered online, even if there were no significant changes, (c.f. Deleuze – individuals and societies of control, 1992).

Hannah also considers how Tapestry as an agentic assemblage impacted on her colleagues as she moderated their uploads as part of her role:

I am part of the moderation group this year so they are giving me two visits and cross referencing the judgements that I have made against the early learning goals to what they see the children doing in the classroom environment and for the evidence that they see in the children's files and from Tapestry. Across in nursery it's my job obviously to moderate their Tapestry entries and that something I do have to do. Tapestry is new and we...they have...made a few mistakes that I think everyone makes with Tapestry like attributing standards to kind of big group situations when yes...it does muck up the whole running of Tapestry if you attribute something to someone that should not be having it

...it's like an ongoing thing that's a problem, so I have learnt how to backtrack things in Tapestry and with the management function I change judgements in there, which I do (interview 2).

The machinic assemblage of Tapestry plugs into the wider school moderation assemblage where the spatio-temporal production of affect is school wide. The moderation group are seen as a means to quality assess the teacher judgements made on children's development and pupil progress. Hannah is part of this wider assemblage on a number of strata – that of assessor, one who is assessed and as part of a school reference group. These stratifications produce a school wide system which allows for the transition of children between the relevant school years. In this instance, Tapestry is only used within the nursery and reception classes with the school using a different system that dovetailed into the output from Tapestry. The control mechanisms are evidence in the need for standardization of input to develop an understanding of children's progress.

Tapestry being-teacher

I suggest Tapestry has an affective influence on the way the Early Years Teachers' observe and assess children and this becomes a self-regulatory modulation where the system needs to be used in certain ways. It is to these issues Hannah refers when she reflects on how her moderation revealed records being updated incorrectly. Tapestry, as desiring machine, provides the need to update regular observations in the correct format to ensure that children are seen to be progressing in their development and learning. Furthermore, desire flows can drive the way entries are recorded for individual children when a record is updated as part of a bulk upload. If this bulk upload occurs entries are made which do not reflect certain children's developmental stage, with this mis-coding having a long-term impact on the child's record. Movement is relative as the bodies are disconnected from space and the differentiations are centred on linear progression rather than absolute becomings in flux. Here I theorise Tapestry as being-teacher where regulatory and statutory requirements desire accurate record keeping. Tapestry allows Hannah to keep within the professional practice requirements, the striated space is a requirement of the situation and the respective systems control and supports this need.

Tapestry and Montessori practice

Tapestry also caused a number of operational challenges for Rose. During one of the observation visits I saw her use a tablet to photograph the activities and asked her about it during one of our interviews:

Yes, that's for photos as well, Tapestry, we take the photos on the tablet and then we can put them straight in...I don't like Tapestry because...if you do an observation and you write down what you've done and then you're supposed to tick the things within the age category and they don't always, there's nothing to tick because it's not what they've done or it's not, so I don't, it's a good way of recording the pictures (interview 2).

I don't know if it changes my practice, or if it just changes the way that we record what they can do? ... So, I don't know how useful a tool it is actually, but as they're required to have learning journals it's just another form of the sticky labels and the printing out of photos. I suppose it saves time in that respect yes. But yeah, it's not an ideal tool (interview 3).

Tapestry's suitability and efficacy sees Rose takes different viewpoint. She admits she is part of the machinic Tapestry assemblage as she is plugged into it/it is plugged into her as she uploads photographs and observations online. In this instance the desiring machine simplifies the observations process with a quick way to link photographs to the child's development record. This territorializes the Early Years Teacher to upload and assess records as one process and could limit teacher thinking time to a quick tick box judgement on the child's development. The relative ease to upload the items allow for an immediate response, however, Rose goes on to mention that online connections are paramount for its usage and working on Tapestry could be challenging and in the Village Hall as internet access was patchy due to weather and Internet Service Provider constraints. The immediacy of uploads and assessments could produce quick mechanistic tick box judgement which could be seen as relative movements limiting the chances of becoming-with the observation and assessment process as time is at a premium.

Disrupting Tapestry – desire and affect

Collisions of desire and affect produced by Tapestry can change the way observations and assessment are recorded to a tick box movement, rather than time to reflect more holistically on the child and the environment. Although Tapestry space is striated, in as much as it defines what and how items are uploaded and recorded, Rose attempts to smooth the space. Becoming-minoritarian/minor gesture sees Rose becoming-professional which disrupts and disturbs the

how and why of Tapestry. There is a fluid movement between (de)territorialization as becoming-minoritarian/minor gesture is a line of flight from the box ticking assessment requirements. However, this is a recurring theme as Rose makes further comments on the need to tick boxes which magnify the affective intensity generated by Tapestry-as-tick-box-assessment. In this excerpt the body (Tapestry) is capable of territorializing the Teacher (Rose) but she makes a compensatory deterritorialization when she mentions she does not tick the boxes. Rose's comments suggest her dissatisfaction as the tick boxes do little to highlight the complexity she finds when observing, she acknowledges that it does save time but is not the most satisfactory of tools (c.f. the critically reflective practitioner, Anderson, 2014b; Whalley, 2011). Moreover, Tapestry tick boxes seem seductive as a means to allow teachers to quickly gain a picture of the child without need to explore the complexity of the child's development. In this excerpt, Rose remained seemingly unconvinced of the efficacy of Tapestry – she had found it hard to modulate her own practice to fit the needs of the machine and still remained unsure.

The lines of flight generated as Rose and Tapestry plug onto each other within the assemblage produce a wider question on the need to observe and assess the children. Rose considers:

And some of the time I think about the value in it because these observations that I've done and I've written in the book as well about that, who's, what are they for? Really? I know we have to have like next steps...but I know that my children are progressing, and I don't think my observations particularly show that they are, I kind of write stuff that I think they may have done that's interesting that week...but not usually anything to do with their next steps. And then when they go to school the learning journals can go to school but the teachers don't read that...they're not going to read that much stuff...so actually you're thinking why are we spending time doing these? It's the same everywhere, because everywhere does observations and it's always like oh we must do these, we must do these but - Who is looking at them? These things that "we must do" no-one is actually, there's not any really point to them (interview 3).

With observations and assessments a cornerstone of good practice, the affect flow would suggest that being-teacher is a positive position to take. However, for Rose this affect is actualized differently leading her to question why life should proceed in this way. She challenges the expectations of the molar machine of the EYFS by questioning the rationale for observations. Pushing the deterritorialization further Rose is affected by new aspects of desire; where the machinic connections run counter to the interplay between the curriculum, Tapestry

and what she does. This encounter represents a further movement of becoming-minoritarian/minor gesture, a line of flight which unsettles and aerates the status quo.

Tapestry – who is looking at the records?

When considering the transition to school Rose's description sees the school teacher as a segmented body, where the temporal nature of the assemblage forecloses detailed reading of the child's learning journey due to limitations of time. As Deleuze argued, data and codes become the means by which populations are monitored and regulated where 'in the societies of control, on the other hand, what is important is no longer either a signature or a number, but a code: the code is a *password*' (1992: 5 emphasis in original). Rose experiences the process by which the EYFS and Tapestry assigns codes to the children, staff who upload the data, parents and teachers who might view the data. Deleuze (1992: 7) suggested this coding 'substitutes for the individual or numerical body the code of a "dividual" material to be controlled'. Furthermore, Rose questions 'who is looking at them?' in this context I argue desiring machines (Tapestry, curriculum, the school-as-body, Government and regulatory bodies) are looking at and assessing children progress.

Tapestry weaving a web

A tapestry is produced by weavers where threads are intertwined, knotted together, to reveal a whole picture. The warp is the vertical threads with the weft horizontally drawn through the warp. This is exemplified by:

Just as the weavers shuttle moves back and forth as it lays down the weft, so the writers pen moves up and down, leaving a trail of ink behind it. But this trail, the letter-line, is no more the same as the lines of its constituent threads. As with the woven tapestry when we look for a text-line we do not find it. It exists neither as a visible trace nor a thread. Rather, it emerges (Ingold, 2007b: 69-70).

The metaphor of weaving can be applied to understand the workings of the Universe and as a metaphysical entanglement as De Freitas argued 'theoretical framing is like a mesh work of lines...a knot of entangled lines' (2014: 285). Haraway also considered the cosmology of weaving where weavers are 'knotting proper relationality and connectedness into the warp and weft of the fabric' (2016:91). Lines are a reoccurring ontological theme as Deleuze and Guattari

(1987) debate how all life is made of lines; molar lines, molecular lines and lines of flight. It is (in)(on) these lines that segments and strata are articulated, and from these lines that ruptures and irruptions take form and flight. These lines smooth and striate spaces and collect/connect rhizomatically with no beginning, end, or directionality but life in the middle (Deleuze and Guattari, 1987). Tapestry, as a control modulation of affect and desire, where the warp and the weft detail the production of learning programmes which enmesh children's learning and development. The connectivity and knots with other bodies form web like connections as the archival movement codes and drives learning and recording. However, Tapestry is also an earthworm rhizome, a middling, a place where things happen, mediated by/through human intervention and moments of becoming-minoritarian/minor gesture. Tapestry-as-spider weaving a web of connections in/between/through ECEC meta-narratives of policy and practice.

Within wider conceptualizations of life primacy is neither given to humans or non-humans. Taking this position I have selected concepts to debate a non-living entity (Tapestry) due to the physical and emotional responses produced within both Hannah and Rose. As I subscribe a flat ontology in my work it was important to me to try and decentre human participants in this research and I have worked with Tapestry-as-participant in this section to afford it the same privileges as the human participants. Furthermore, I have demonstrated the complexity and nuanced way in which modulations of practice and mediations are revealed as becoming-professional and being-teacher within and between assemblages. The (an)archival relays have considered the earthworm figuration as tunnels and (re)turns to ways of knowing/being/acting as Early Years Teacher. Moreover, I have theorised Tapestry-as-web where life is processual as a series of lines – the anarchic of connectivity (Massumi, 2016). Additionally, Tapestry-as-web is a figuration which details the rhizomatic connections made, dropped, and remade between Hannah, Rose, documents, children, curriculum and regulators. I have explored the nature of control mechanism and how the technology of Tapestry drives the Deleuzian notion of the 'dividual'. Early Years Teachers have a statutory duty to observe, assess and plan children's learning and development. Within this section I do not seek to challenge this assertion, however, I acknowledge that this requirement produces a segmented Early Years Teacher: child couplet which is framed by human capital theory.

Matter, Materials and Materiality

I argue that ECEC settings are sites of encounter with materiality due to the play-based pedagogy of an exploration of the child's world. Pacini-Ketchabaw *et al.* (2016) have

demonstrated the important of material resources in the classroom and it is to this I now turn. Within this section I will explore the knots and entanglements of bodies within and between Early Years Teacher assemblages within a number of events which include a rice tray, Montessori material, and a dialogue as to whether material has a voice. Feminist New Materialists such as Barad (2003, 2007) and Bennett (2010) have explored the affective nature of matter and encourage us to pay heed to the continuous entanglements of humans and non-humans in more-than-human relations. Barad (2003: 810) suggests ‘What is needed is a robust account of the materialization of all bodies - “human” and “nonhuman” - and the material-discursive practices by which their differential constitutions are marked’. In *Meeting the Universe Halfway* Barad (2007: 132) draws attention to what she entitled ‘agential realism’ where she proposed that material-discursive intra-actions allow for agency to be distributed across both the discursive and material world. In this conceptualization matter becomes more than a fixed substance and its intra-actions are ‘not a thing but a doing, a congealing of agency’ (Barad, 2007: 151). There have been a number of debates about the nature of materials and materiality. For example, Ingold (2007a; 2010) considered what constituted the material world settling on matter/materials as any object discovered or created by humans where ‘human beings do not exist on the ‘other side’ of materiality but swim in an ocean of materials’ (Ingold, 2007a: 7). He also discussed how materiality, the properties of matter, are not fixed attributes of matter but are revealed during ‘processual and relational’ (2007a: 1) interactions between matter/materiality and the wider world. Furthermore, Bennett suggested that maintaining a human: matter binary promotes the notions of ‘humans-as-separate-from-the-world’ (2016: 70) where humans are privileged and matter is seen as inert under human mastery and control.

Rice Tray Moments

The rice tray encounter was observed on the first visit to Hannah’s school. The children had been involved in a targeted ‘carpet time’ session when they were discussing a play they would be designing and performing to the wider school. Following this discussion, the children were allowed to freely select activities they might want to engage with. During this free time Hannah invited children individually to join her for a writing intervention where they were encouraged to write a line about the character they would be performing in the play (c.f. hybrid teacher/pedagogue, Whalley, 2011). The classroom was set up with a range of zoned activities and the children could have selected to play either inside or outside in the mud kitchen. One of the girls, Stella, asked to play at the rice tray (see figure 17) and Hannah opened the lid so she

could access the resources. This section focuses on Stella in relations with the rice tray; Hannah is part of this scenario but as an enabler of the rice tray: Stella entanglement.

Figure 17 The Rice Tray



Rice tray fusions

In *A Cyborg Manifesto* Haraway (1985) critiqued feminist identity proposing the cyborg as a means to move beyond binary dualism and to transgress taken for granted boundaries. Within this seminal piece, she theorised the cyborg as a fusion of humans and machines, nature and culture, physical and non-physical. This human/non-human hybrid allowed her to problematize identity (specifically female identity) and to regenerate links between social and natural/technological science. When considering corporeal bodies, it is important not to limit their boundaries and as Haraway questioned ‘Why should bodies end at the skin, or include at best other beings encapsulated by skin?’ (2004: 236). A similar notion is employed by Longhurst (2001), where she noted the fluid and leaky nature of corporeal bodies in wider geographical spaces. Here bodies and their spatial relationship with the world become sites of negotiation and challenge the hegemonic coding and cultural inscription previously afforded to them (Longhurst, 2001).

Haraway (2008b) detailed that life and connections occur in contact zones which show the how and when of becoming. This allowed her to draw on the work of Whitehead and Stengers to reflect and question how an entity is becoming. She concluded that ‘becoming is always becoming *with* – in a contact zone where the outcome, where who is in the world, is at

stake' (Haraway, 2008b: 244 emphasis in original). The following excerpt from my observation notes reveals matter becomes influential in classroom as it orients the actions of both the Early Years Teachers and the children. In the excerpt I theorise how Stella becoming-with the rice tray as she moves beyond the physical boundaries of her own skin as she joins and becomes part of the rice tray assemblage:

Stella wants to play with the rice tray and Hannah sets this up for her. Stella is at the rice tray scooping and filling the pots and humming to herself. She flows between the role play and the tray and announces she is making cakes for her friends. Back in the role play Stella picks up a wand with a star on top of it and brings to rice tray waving it over the tray. She moves between the role play kitchen and rice tray as they bake. Other children are playing around her but Stella is still scooping the rice, filling containers and humming a tune to herself. Stella moves to the art table and asks two girls what they are doing, she watches them paint for a little and they all talk about their paintings.

Stella is back at the rice tray filling the containers – I can hear the sound of the rice on the plastic containers, she watches it intently as she pours rice and it overflows the containers 'I am making cakes for my friends' she says. Stella turns her attention to the top of the rice tray – it has a ridge in the top, she strokes the ridge (getting rice off maybe?) and hums again as she fills the containers (11.00 a.m.)

Hannah collects Stella 'I haven't finished my cakes yet I still have lots of exciting work to do' they move to writing table, as she leaves the table Stella calls 'I am making cakes don't touch them' (11.10 a.m.).

Stella is back at the rice tray again clearing rice from the groove on the top, stroking the whole rectangular shape of the tray – she carries on humming, pouring rice and using the spade to pat the rice down in the containers (11.20 a.m.) (observation 1).

Stella spends most of her time at the rice tray during this part of the session, her humming is almost hypnotic, relaxing and the scooping and filling of containers an affective response to the call, a Deleuzo-Guattarian (1987) refrain,¹⁹ of the rice tray. Taking a line flight connects Stella to that of a drone (Bloomberg, 2015) as the term can indicate either the hum made during drone flight or that of a musical instrument. Stella is becoming-with the rice tray and is part of a

¹⁹ The refrain is a block of content which are the organising principals for territories. Deleuze and Guattari (1987) exemplify the refrain in territorial birdsongs where the refrain not only creates the territory but becomes a repeatable motif in the landscape (Bonta and Protevi, 2004).

wider classroom assemblage which includes other children and resources, in this instant she and the rice tray become inseparable, both part of the droning refrain (Deleuze and Guattari, 1987). When scooping, filling and humming her body is not bounded by her physical skin and her skin leaks electrons at the cellular level plus fluid (sweat) and skin fragments. The electrons from Stella's skin cells are shared, via electro-static attractions, with the electrons from the scoops, rice, wand and containers within the tray and these become-with her, extensions of her, similar to Haraway's cyborg (1991; 2004), albeit a non-technological hybridization in this instance. In the excerpt above I theorise Stella becoming-with rice tray which reveals the production of a rice tray: human hybrid. The boundaries of her skin disappear as scoops, rice, and containers become part of her physical being. The image of the cyborg transcends the notion of human centeredness and binaries (child: resources), and reveals 'the boundary between physical and non-physical is very imprecise' (Haraway, 1991: 153). The scoops and containers become extensions of Stella's hands and arms. The connection point (her skin) becomes porous/leaky (Longhurst, 2001) and the fusion/hybridization occurs as the level of electrons, as the atoms in her body are shared with the electrons of the material objects in a moment of viscous porosity (Tuana, 2008).

Rice tray - Body without Organs and Trans-corporeality

Stella strokes the ridge of the rice tray and it exerts an affective response in Stella with the point of becoming seeing them (Stella and rice tray) emerge as a Body without Organs (Deleuze and Guattari, 1987) or a trans-corporeal production (Alaimo, 2008). In the classroom, the flows of desire territorialize Stella as she is called away by Hannah from baking cakes, to participate in a writing intervention. However, the lure of the rice table acts like a Siren²⁰ and is at the forefront of Stella's mind as she asks her friends not to 'touch them' (the cakes) or enter her territory. After the intervention, the rice tray draws her back, the rice tray: child hybrid complete as she hums, pours, and works with the rice. Cake baking becomes an ephemeral moment of the tension between Haraway's goddess and cyborg. The goddess in this context is the reified feminine nature of women which *A Cyborg Manifesto* was written to question 'though both are bound in the spiral dance, I would rather be a cyborg than a goddess' (Haraway, 1991: 181). Stella hums, sings, and announces as if to other children and Hannah, but perhaps in the cyborg

²⁰ In Greek mythology the Sirens were (dangerous) creatures who lured sailors to turn their ships towards coastal rocks. Their enchantment was with music and songs which affected the sailors psyche encouraging them to sail towards certain death.

moment it is the rice tray and its contents to whom she speaks, waiting for it to respond – the sound of rice on the plastic and the sensations generated from the feel of the plastic and rice. This movement/moment sees becoming-professional as a hybridised rice tray-human chimera as a more-than-human entanglement which breaks apart Hannah and the curriculum.

Deleuze and Guattari consider the Body without Organs (BwO) as a mechanism to move beyond the three cornerstones of representation – ‘the organism, significance and subjectification’ (1987: 185). At the zone of indiscernibility, Stella becoming-with the rice tray means these organizations are blown apart. Moreover, I argue Stella still retains aspects of her human-ness and the rice tray aspects of its thing-ness but both bodies are connected and open to wider connections with the scoops, containers, rice, other children, writing interventions and Hannah-as-teacher. These interrelated connections are described by Deleuze and Guattari where ‘it is only there that the BwO reveals itself for what it is: connection of desires, conjunction of flows, continuum of intensities’ (1987: 187). Alaimo proposes the term trans-corporeality as a concept akin to the BwO where more-than-human engagements form a space/place to ‘meet and mingle in productive ways’ (2008: 238). For her this theoretical, practical and conceptual space allows for ethical and political possibilities for the emergence of new ways of seeing and thinking human and more-than-human entanglements. Within this encounter, I theorise Stella becoming-with rice tray revealing an earthworm space generating actualization of the hybridity of cyborg (Haraway, 1991), the BwO (Deleuze and Guattari, 1987), and trans-corporeality (Alaimo, 2008). Furthermore, I argue that these movements/moments serve as earthworm anarchival relays of becoming-minoritarian/minor gesture as human and non-human identities are fractured at the ethico-political moment of hybridization.

(Un)real material resources

In the following excerpts I will explore the perception of matter-flows, brute materiality and whether matter is lively, agentic and brimming with ‘thing-ness’. ECEC settings and schools are very material spaces, where children are encouraged to engage with a multitude of material resources as a mean to enhance curricula learning and support child development. For some ECEC philosophies, for example Reggio Emilia, the wider environment is seen as the third teacher (Rinaldi, 2006). In England, recent policy (DfE, 2013d; DfE, 2014a) provided a more segmented view of the ECEC environment where the EYFS states ‘children learn and develop well in **enabling environments**’ (DfE, 2014a: 6 emphasis in original). Furthermore, Early Years Teachers are encouraged via the Teachers’ Standards (Early Years) to establish safe and stimulating environments where children either ‘feel confident to learn and develop’ (DfE,

2013d:2), or sustain a safe environment ‘and employ practices that promote children’s health and safety’ (DfE, 2013d: 4). In these contexts, the dual role of the Teacher is to ensure children are progressing in their learning and development and being kept safe from harm. This view dehumanises the Teacher and the child as deficit needing both instruction and protection to fully develop to effective segmented human capital imbues humans. Furthermore, as Ingold (2010) suggests this view separates the human and material world by dividing matter into discrete objects which are used to support/promote human development. The question remains as to how attention can be given more fully to material objects, the ‘things’ of Jane Bennett’s (2010) work. Coole encourages us to see matter differently ‘as lively materiality that is self-transformative and already saturated with...agentic capacities’ (2010: 92). Additionally, Ingold encourages us to see nothing as a given with regards to the material world. He asks us to move away from seeing matter as passive ‘brute materiality’ (Ingold, 2010: 8) and to ascribe to Deleuze and Guattari who see entanglement with matter as ‘matter in movement, in flux, in variation...this matter-flow can only be followed’ (1987: 446-447).

Figure 18 The Montessori Classroom



Montessori resources – body without organs

Rose admits there are a lot of resources on display in a small space. She describes the challenges of a pack away setting and how the environment is staged to cover all the EYFS and Montessori (Isaacs, 2012) areas of learning (see figure 18) (c.f. teachers leading quality learning environments Sylva *et al.*, 2004; Mathers *et al.*, 2011). Due to the size of the setting and space constraints much of her time is spent restaging the resources in order to establish an inviting learning environment. This use of the environment meets the requirements of the EYFS and

Teachers' Standards (Early Years) (DfE, 2013d) where engaging environments are required to provide learning experiences for children.

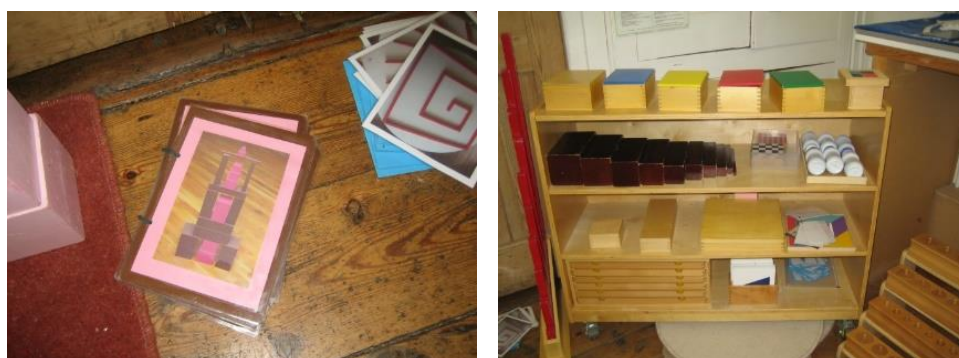
Drawing on the notion of passive and brute material (Ingold, 2010) Rose considers how she and the children engage with some of the Montessori material in her setting. Within the excerpt a divide can be sensed between the human and non-human world, as she retells how children work with a particular set of materials which are used to promote spatial and mathematical awareness:

we've got other things like the sensorial things, so we've got like there's the pink tower which is like cube blocks, and they go from a 1 centimetre cube block to a 10-centimetre cube (see figure 19 – first image). And then they're usually arranged from the biggest ones at the bottom upwards. So there are certain ways of showing them how to do that and the stairs, the broad stairs that they can, and there's different arrangements and things that we've got with photographs in the little booklet so after the simple ones which is like where you make the broad stairs, there's the rectangular version of the pink tower so they match up, goes just like a stairs down so they can match them up together, with the pink ones and the brown ones and they show them how they fit together, so that sort of spatial awareness and sizes and then they realise that the pink ones match the brown ones but you can sort of, there's different pictures they've got one that's sort of a tower but it shows like the bigger ones at the bottom because they're heavier and it makes more sense to put the little ones at the top. And there's a system for building it, but we built it the other day and it wasn't quite right but it still stood up so that was fine by me, so!
(interview 2).

In the above excerpt, it would be easy to suggest that the segmented way the resources are used reflect a binary of purposeful: un-purposeful play and the linear notion of how children should progress in their development and learning. Rose discussed earlier on in the interview how Montessori material is design purposefully with progress and mastery in mind which sees being-teacher enacted. Teachers need to present and restage resources in certain ways to meet the specific purpose of the material. The way in which Rose discusses the material resources indicate they could be seen as inert waiting on shelves for humans to select and experiment on. However, I was able to observe how the affective nature of the material prompted a different usage from the children. For example, the pink tower and broadstairs (figure 19 – first image) were used as blocks for a garage or homes for small toy animals. The children being affected by the multiplicity of ways in which the resources could be used, in some cases these uses moved away from the original Montessori purpose. In these disruptions the agentic and vibrant nature of the material is revealed as a movement of becoming-minoritarian/minor gesture generating

lines of flight where children use the real material for (un)real actions. The idea of material as promoter of child development and learning is transcended as the material-child entanglement reveals a supplier view of playful learning. The material: child intra-actions allow material objects to be seen for more than their physical form and as Ingold (2007a) suggests these intra-actions unfix the properties of the material objects.

Figure 19 Montessori resources



Care must be taken as Deleuze and Guattari remind us ‘the BwO is always swinging between surfaces that stratify it and the plane that sets it free’ (1987: 187). ECEC has a defined purpose in policy and professional practice in England, one of which is to support child development and learning in preparation for school (DfE, 2014a).²¹ Rose being-teacher becoming-professional needs to balance her role, and too much deviation from expected paths becomes problematic. She already conceded that aspects of professional practice are a challenge to her when she debates some of the rationale for observations, assessment and planning. Furthermore, she discussed how she allowed children to use the Montessori resources more freely moving them away from their original purpose. Ultimately working within the EYFS does have a number of constraints which all ECEC settings need to remain within. This is exemplified by Deleuze and Guattari who discuss how (violently) freeing the BwO without considering the outcome could have a catastrophic effect, they note a chaotic life is not always the preferred option.

²¹ See this debate in chapter two 21 - 48.

Montessori resources – health and safety

Rose discussed health and safety and that resources on offer were different from normal classrooms in as much as they included real items such as coins, tweezers, small beads, glass and china items (see figure 20) which might not be considered ‘safe’ with a mixed age group of children (between 2 years old and 4/5 years old). In fact, part of the Montessori philosophy is one of the children constructing themselves via an engagement and entanglement with real/(un)real material objects and activities (Isaac, 2012). The Montessori philosophy and ethos has synergies with the EYFS which encourages children to become competent, capable individuals as they are prepared to enter compulsory education. In this excerpt below the segments become supple as children are freely able to access what might be traditionally considered adult ‘things’:

Yes, the pouring activities are usually in little glasses or glass jars, the water ones they’re in little ceramic jugs, yeah, and they have for snacks they have little ceramic plates and they pour from the glass jugs themselves, because it’s supposed to be more like adult stuff and it gives them a bit more responsibility and they have plastic plates for lunch and they throw those back in the bowl when they’ve finished but they don’t throw the other ones (interview 2).

Figure 20 The Practical Life Shelves



Montessori resources – thing power

Bennett details how ‘thing-power arises from bodies inorganic as well as organic’ (2010: 6). In the above excerpt the glass and china items could be considered as possessing thing-power and be interpreted in a number of ways. The affective nature of using ‘real’ items produces a different response in the children, this could be viewed as a stratification where children are told to take care with glass and china, but the material itself could exert an agency over the children with the weight and texture prompting a more careful response. Or perhaps, an alternative view could reveal a more fluid interpretation of childhood with lines of flight connecting pouring and glass which have connotations of fluidity. This was highlighted by Moakes (2016) who discussed how the properties of glass are deemed ‘liquid’ even at room temperature. The juxtaposition of pouring and glass can be set against the fluidity of interpretations of childhood where in this instance children are seen as capable of using traditional ‘real’ objects. Or maybe, agentic affective properties of things which produce a different response in children to normal expectations: the weight, coolness of the material and the smooth texture of the glass and china encouraging children to take care. These examples of micro-political moments could be considered what Bennett entitled ‘clues to materiality’ where ‘vital materialists will...linger in those moments during which they find themselves fascinated by objects’ (2010: 17). In this excerpt the children and Rose becoming-professional tune into those clues in different ways.

Montessori resources - Matter out of place

Bennett (2010) debates the object-human assemblage when she encountered a range of debris-objects which revealed to her the vitality of each object as a singularity and the collection of objects as a multiplicity. I consider the transversal cut with regards to (un)real material resources and wonder what the cut might reveal, Is the cut a wounding of the assemblage – what might leak out (or in)? The use of real objects (glass and china) in the classroom might seem like matter out of place in unexpected entanglements. Moreover, I connected to spatio-temporal notion of matter out of place whilst visiting a working pottery as part of a conference field trip. Working with the cut sees dummies (pacifiers) placed in fissures of the brickwork of pottery buildings which reignited the matter out of place figuration in the Montessori classroom. Seeing glass and china used in a classroom produces a stutter (c.f. Deleuze, 1997; *Essays Clinical and Critical*), a link to the Montessori notion of child’s work as a means of self-construction; a pull to a humanist way of thinking. However, leakage is also part of the stutter, a move past the norm, a vibrancy of a real items and the affective-thing-power it produces in ECEC classroom

spaces. A further stutter sees resources and children acting away from normative expectations, for example, a pink tower and broadstairs as garages and animal homes rather than mathematical activator.

Figure 21 Dummies (pacifiers)



There were further instances when material was used for the purpose it was not necessarily signified for. For example, Rose detailed that the setting did not have a role play area and that children removed resources from the classroom and surreptitiously took them outdoors where other toys were combined for a picnic role play. In these instances, the vitality of the materials are revealed as they invite a different-from-planned usage. Rose also discusses how lines of flight see children use the Montessori materials for a different purpose:

Yes, like the red rods (see figure 22), one of the little boys the other day he just lined them all up, like right across the room when we were in the big hall and then he moved them around and he put them on the white lines of the court, of the badminton court...I will just let them carry on and do a big long line of the red ones across the room and if we've got space especially in the big hall in the afternoon it's quiet, no-one is going to

trip over them, then it's fine. But if we're in the little room and they suddenly want to do the great big line of the red ones on Monday morning when we've got 20 children in, it's not going to happen! (interview 2).

Figure 22 The Red Rods



The desiring machine reveals the resultant symmetrical engagement with red rods and white lines on the classroom floor. I have demonstrated in the previous chapter how space is both striated and smoothed in ECEC classrooms (pages 98 – 107), perhaps this micro-political moment produced a line of flight which revealed the striations in space and curricula and how this can be disturbed and smoothed in an engagement with Montessori material. Within this section I have argued that lines of flight with materials can offer a new dimension on accepted policy and professional practice, which are always already saturated with common sense notions of meaning making. Coole and Frost detail that ‘performances are institutionalized in rituals and ceremonies, they also become sedimented at a corporeal level, where they are repeated as habits or taken for granted know-how’ (2010b: 34). Rose’s becoming-professional encounters with materiality help to demonstrate what might initially seem to be repeated orientations of bodies which (re)inscribe expectations of knowledge. However, when following matter-flows and exploring vital matter on the boundaries of material-discursive practice a new view of life can be glimpsed. I consider how life might be theorised as matter out of place and made connections between this and the Montessori classroom. Working with the earthworm figuration generates connections between humans and non-humans in more-than-human entanglements where micro-political acts of vital materialism are revealed.

Classroom actants

Conceptualizing the non-human ‘voice’

I argue non-human ‘voice’ is difficult to conceptualize, however, these excerpts presented allow me to consider how more-than-human relations might reveal non-human ‘voices’. In this section I will consider whether material objects ‘speak’ to Early Years Teachers and children in the classroom. Coole and Frost (2010a) consider that bodies/material are political and exhibit agentic capacities in the way they structure and potentially influence their own perception. Furthermore, it is important to move beyond an anthropocentric view of material objects, to consider more than prosopopoeia where humans speak for material objects. Chow (2010) discussed how human consciousness are such that social interaction is so inscribed and foregrounded it becomes a challenge to register non-social, non-verbal interaction. She asked us to rethink the world as she suggested things are never what they seem and that ‘materialism/materiality is no longer a simply inert matter, content, or essence but rather a long-standing series of interpersonal transactions of conflicting interest’ (Chow, 2010: 223). Ahmed (2010) concurs when she proposed we should review how objects are perceived and reminded us of the absent presence – what we do not see about the object. By considering the absent presence, we are able to make familiar objects unfamiliar and explore how bodily orientations impact on our perception. This recognition is not neutral work as Ahmed (2010) suggested bodies materialise tendencies based on their proximity to other objects.

Bennett (2010) postulated the vitality of material objects which give them their thing-power. She described vitality as ‘the capacity of things – not only to impede or block the will and design of humans but also to act as quasi-agents of forces with trajectories, properties and tendencies of their own’ (Bennett, 2010: viii). Furthermore, Bennett (2010) described an assemblage as a federation of actants in which agency is atomized and distributed across the assemblage. Here the assemblage owes its own agentic potential to the vitality of the material that constitute it. These ideas of actants and vital materialism collapse the binary of subject and object, human and material, as Jones and Hoskins ask ‘what might be possible, when we as researchers, encounter this empirical text [*material thing*]...as having something to tell us?’ (2016: 77). Luke Bennett (2016) explored the notion of the world with us where the material object is part of the social world. He asks us to reflect on Posthuman educational research projects where the material world is co-implicated in its interactions in the classroom and might influence and drive pedagogical practices. Drawing on Ingold (2010) he warns that moving away from a flat ontological position reinscribes the subject: object binary and promotes a human-as-separate from the world.

Non-human 'voice' in schools

Hannah was asked about how both children and teachers use the material world. She discussed previously how she had spent time dividing the classroom into curricula zones and the layout of the material resources reflected these zones (pages 98 - 100). She also had themed areas within the classroom, for example, on my second visit there was a part of the room staged as a hairdresser and on my third visit this has been transformed into a travel agents. When asked about the layout and how things had been themed she responded:

Well it morphs, the way we lay the furniture out kind of changes all the time and I find if you leave anything as it is or where it is for too long, it just gets stale and they won't approach an area. I mean you saw them today playing in the construction area with the zoo yet they haven't been in there for a month. Funnily enough I put the zoo animals out on the floor today and just that act of pulling one box off the shelf and suddenly they are all clamouring and too many people wanting to play in that area then, but it's always the way, it's a big classroom there are only 6 children but still the two things they wanted were the zoo and to play on the Make and Do table (interview 3).

As detailed in the excerpt the classroom becomes segmented as the space is bounded by chairs and tables. In this way, the furniture becomes an actant on the other parts of the assemblage which included the other resources, teacher, and children. In order to move past the segmentarity, chairs and tables needed to be pushed back to reveal clearer areas of the classroom, for example, to set up a role play travel agents. On the day of my visit no children entered the travel agents and I could only assume that the affective nature of the materials had dissipated and moved to other classroom actants. The children were queuing to play with the plastic zoo animals, the vitality and vibrancy of these resources was clear as the children walked, stomped, roared, swam and flew them around the construction area as part of their (becoming-children becoming-zoo creature) intermingling. Hannah must have sensed this change in affective relations, as she had pulled open the draw which contained the zoo animals that morning (c.f. hybrid teacher and pedagogue, Whalley, 2011). This act revealed the vibrancy of these resources which drew the children into more material entanglements with both the zoo animals and the Make and Do table. The Make and Do table had a vitality of its own, strewn with a range of junk modelling, glue, tape, scissors, tissue paper etc. these actants draw the children to the table end enticed them (the zoo animals and the children) to come over and use the resources.

Following the above discussion with Hannah and the observations made in the classroom, further questions about the material resources were posed. In response to the question 'I wanted

to say to you with all the resources in your room...I can't even say it without making it sound human - Who speaks for material? Does it speak for itself? Or do you control the environment?' Hannah detailed:

Yes, I think you do. As the adult I think anyone is very short sighted if lots of people do say to me it's child led, or I've used Mosaic approach to plan these things, but in all of those things whoever leads those sessions as the adult is always steering things in the direction that they want them to go (interview 3).

In this excerpt, Hannah details the challenge with collapsing the subject: object binary (c.f. critically reflective practitioner, Anderson, 2014b; Whalley, 2011). Hannah is clear that it is her influence which directs the usage of the resources and if not her directly it is a result of her observations (c.f. the Mosaic approach, Clarke and Moss, 2011) and her planning of certain activities using certain resources.

Figure 23 Hannah's classroom



Material vitality and reinscription of the subject: object binary

I have shown in both excerpts that the vital nature of the material can be revealed. Hannah being-teacher discusses the ways in which both human actors and material actants shape classroom layouts and pedagogy. The first excerpt details the vibrancy of the zoo animals and the Make and Do table which produce a number of becomings-with-material as children engage in their play. The segments and striations are palpable as Hannah discusses the set-up of the classroom. However, during my third observation, these become supple as children were

affected by the material where the familiar becomes unfamiliar, a necklace and dinosaur hybrid ‘talks’ to a shark which take a line of flight to a reading intervention where a book named ‘Shark in the Park’ (Sharratt, 2007) is being read. On the Make and Do table the junk modelling becomes items for the zoo animals to engage with and a parade of zoo/junk modelling/necklaces takes place as the book is being read.

The second excerpt details how the subject: object binary is inscribed and reinscribed on Hannah’s psyche. Her thoughts are territorialized by the common-sense notions that humans have mastery over their environment and this philosophical position is hard to break away from (Chow, 2010). For example Ahmed (2010), would consider wider possibilities about the human-centeredness in these comments – perhaps the orientation of material influences and affects the choice and usage of said material. Furthermore, humans need time to re-assess their own ontological positioning and as Jones and Hoskins suggest ‘all we can do...in the face of these complexities is to ‘be’, and to remain engaged, and quietly and openly to forestall interpretation’ (2016: 89). As Bennett (2016) details the ‘world with us’ allows us to understand a different way at revealing the nature of education as an inter-relationship between humans and more-than-human worlds. In these two excerpts I have revealed how the tensions between the ‘world with us’ and a humanist view of education are apparent – it is clear how the objects orient themselves towards Hannah in excerpt one but are part of the absent presence in excerpt two.

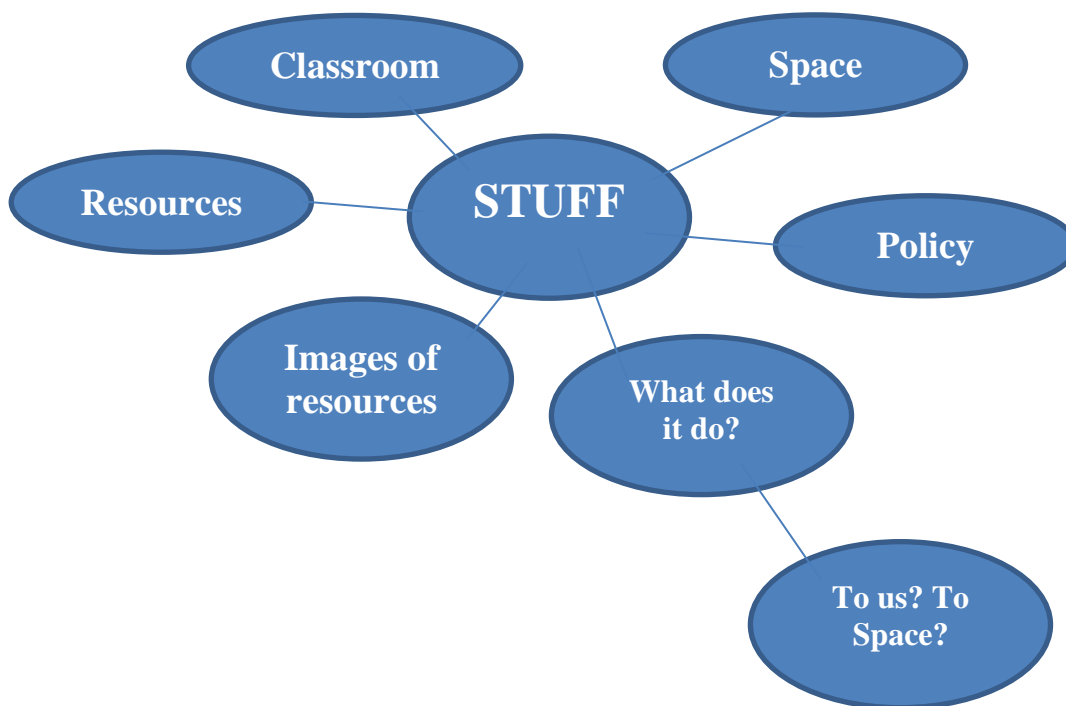
Non-human ‘voice’ in a Montessori setting

Rose takes an alternative perspective on who ‘speaks’ for the material world. After our first interview, we discussed material objects and the influence they have on other bodies. In this extract, Rose is debating the affective nature of the material and the classroom space. These debates arose after I asked her a question at the end of our first interview about who speaks for matter in the classroom, the resultant extract was written in her diary after the interview. We followed this up again in the second interview and Rose discussed some examples of how the children and teachers use the Montessori material which is referred to earlier in this chapter. There is an internal dialogue which includes a (re)turn as to whether humans are the source of the vital-ness of material, or whether it is the material itself which drives this vibrancy. Again, I argue it is hard to conceptualize a material ‘voice’, the strong binary between humans: things see humans as self, the powerful thinking speaking subject, and things as other, the passive recipient of human mastery. The prevalence of a human-centred ontology over a flat ontology can foreclose alternative ways of thinking-doing-feeling human and material relationality.

However, there are areas of absent presence where Rose starts to consider what ‘stuff’ does for/to her and although this is not explored by her in more detail it is clear that suppleness is affecting the human: thing binary. The impact of ‘stuff’ highlights ‘the little crack, the imperceptible ruptures’ (Deleuze and Parnet, 1987a: 131) where the power of the material and the swarm of vitalities (Bennett, 2010) starts to appear. It is in this extract that Rose starts to collapse the subject: object binary where she suggests the matter allows children to ‘speak’ and reveal their true entangled matter: child selves.

The diagram was from Rose’s diary (figure 24) below and details her first thoughts about the matter in her classroom (c.f. critically reflective practitioner, Anderson, 2014b; Whalley, 2011):

Figure 24 Rose - Who speaks for matter?



Her diagram was annotated as follows:

In our nursery, the owner manager has chosen most of the objects in the room – bought or made many by herself for environment and a few I have added. Her choice of specific objects is her voice:

- When the children use them, their interpretation is a different voice

- How I interact with resources is a different voice not necessarily the expected or ‘correct’ Montessori way
- How does the stuff affect me?
 - o Time tidying the room
 - o What I do with them different to what is it used for in nursery?
 - o Everyday objects – such as practical life
 - o Feelings about them? Packing away, routine set up, staging for each day

Who speaks for matter? Or does it speak for us? An empty space (of people) reveals a person’s choice of objects, colours, things of importance to them without their explanation – their personality (ordered, chaotic, calm, busy) – choice of colour? – Shared space – family home – workplaces (built together or a dominant voice). Maybe things you can interpret about that place from things you already know – does it pose new questions?

In the nursery, the choices of objects, layout, displayed posters, location of resources are all things I have been told where they go so are not my voice but that of the manager.

Or, am I sharing that voice now as I’m now part of that environment – set up the same way?

It would perhaps not be how I would do all/some of it.

Children speaking through matter they choose – showing their interests, sharing their voice in different ways.

Rose continues to consider how the material objects allow the children to ‘speak’. I have previously discussed the challenges which surround the idea of giving voice (pages 71 - 73) and how transcribing, inscribing and re-inscribing can constitute new variants of the ‘truth’ (for examples of this please see Jackson, 2009; Mazzei, 2009; MacLure *et al.*, 2010 and Lather and St. Pierre, 2013). Furthermore, Rose’s considerations are seen in the excerpt below:

Yes, because I put something about them choosing what the toys that they play with are, so I think that’s what especially we notice that some of them go back to the same things over and over there, like their favourite things, so it’s like that showing what their interests are, and not always, it doesn’t always last, sometimes they’ll do the same thing

for a few weeks and then they won't play with that again and then it can change, like what they're interested in (interview 2).

In this above excerpt (and the diary extract) the corporeal voice of the children is silenced and the material voice is revealed in the children's entanglement with the resources. The affect of the vital material calls the children back to engage repeatedly, then the flows and intensities are distributed elsewhere as the children are called by a new material object. Rose becoming-professional is mapping the limits of the corporeal voice and getting lost within the traditional notion of which body has a 'voice' or can 'speak'. It is a challenge not to get caught up in anthropomorphising the material 'voice', however Lather (2009) suggests interpretation of voice should be troubled and Rose's dialogues/debates allow her to do this. Furthermore, Mazzei (2009) details that mapping voice 'allows us to move around, but does not merely re-create or re-present the soundscape as it is known to us' (2009: 58). The cracks of becoming-minoritarian/minor gesture detailed in the extract and excerpt show how it is possible to work at and push past the boundaries of the known corporeal world and I demonstrate that 'voice' can be a more-than-human concept. It is within the earthworm rhizome that I argue materials, affect, distributed agentic assemblages and their co-implication with humans constitute a material 'voice'.

Figure 25 Montessori resources



Afterword – actants, non-human 'voice' and material relations

In this section I have discussed both (an)archival movements/moments and how they enmesh humans and non-humans in more-than-human relations. The becoming-professional, becoming-

minoritarian/minor gesture's as earthworm disturbances detail a more absolute movement where difference is explored. These include the interplay between Stella and the rice tray theorised using cyborg figurations (Haraway, 1991). Here, the Deleuzo-Guattarian (1987) refrain of the Stella-rice tray assemblage revealed how humans became-with objects. In Stella's case I proposed that this becoming is at a molecular level where electrons leak and are shared between humans and objects. Furthermore, I employed the notion of the cyborg to debate the gendered nature of 'baking cakes' in an all-girls school where becoming-with rice tray is concerned with human/non-human relations rather than gendered behaviour.

The vibrancy, vitality and agentic capacities of Montessori materials were explored and I theorised how matter out of place produces the opportunity to aerate a stutter. Rose considers how the Montessori materials are affective in as much as they encourage children to use them, and children were affected when they use the materials in ways which they were not designed for. Montessori classrooms use real resources, for example glasses and china objects as part of the activities on offer and these can be reconfigured to produce more fluid interpretations of children. Drawing on Coole and Frost (2010a; 2010b) and Bennett (2010) I propose that being attentive to the micro-political movements with materials can reveal new moments of the agentic capacities of the materials and aspects of vital materialism.

Classroom actants were explored as Hannah considered how bodies in space are oriented towards a particular purpose (Ahmed, 2010), for example, the children's engagement with the zoo creatures. Wider consideration was given to the material 'voice' when both Hannah and Rose thought about how materials may/may not have a 'voice'. It is always a challenge not to anthropomorphize non-humans as much of language is always already saturated with human-ness rather than thing-ness. Working at the limits of the human voice I proposed that materials, affect, distributed agentic assemblages and their co-implication with humans constitute a more material 'voice' and am mindful that this definition works at the boundaries of the current conceptualizations of voice. Furthermore, I argue that material agency and vibrancy moves away from the humanist notion of agency, however, materials do produce affects in classrooms and these affects influence both other humans and non-human bodies. Furthermore, the material 'voice' can be hard to conceptualize due to our human preoccupation with the spoken word. However, I have demonstrated how the agency and affect in the classroom produce earthworm movements/moments which aerated and troubled concepts to reveal the non-human 'voice' as materials, affects, distributed agentic assemblages and their co-implication with humans.

Entanglements with the natural world

In chapter four (pages 124 - 140) I explored how outdoor spaces and territories were formed and expressed. In this section I will entangle with the natural world and engage with the affective relations which are produced (with)(through) Sarah and Claire. Revealing these relational movements/moments start to unpick and explore the nature: culture debate as I consider what the glow data revealed in this aspect of the inquiry. Members of the Common World Childhoods Research Collective (2016) have started to challenge and trouble the perceived relationship children have with nature. From pioneers, such as Froebel to the work of Forest Schools, the ECEC child uses nature as a learning tool, a way to understand and collaboratively gain important knowledge from the natural world to support learning (Knight, 2013). Outdoor experiences are mandated in the EYFS albeit in a more mechanistic way. Here spaces must be 'fit for purpose and suitable for the age of the child' (DfE, 2014a: 27) and access must be provided for daily unless 'circumstances make this inappropriate, for example unsafe weather conditions' (DfE, 2014a: 28). This view of an educative natural experience dovetails with the predominance of human dominance across the nature: culture divide and limits other possibilities to explore human and more-than-human entanglements. Taylor (2013) takes an alternative world view seeking to 'queer' the relationships with humans (children) and nature. In her book *Reconfiguring the Natures of Childhood* (Taylor, 2013) she draws on Haraway's queering of nature (Haraway, 1994) to develop wider conditions of possibility. Within this text, she reveals how children and nature (common worlds) are enmeshed and that life is shaped by the knots and connections within and between the human and more-than-human worlds.

Moreover, human relationships with the natural world have traditionally been seen through a lens of human separateness from nature. This worldview can be traced back to Enlightenment thinking where philosophers such as Rousseau postulated a human-centred view of the natural world and valorised a romanticised human relationship with nature (Wallin, 2015). There are alternatives to the romanticised Cartesian way of separating humans from nature. Kohn (2013) in his book *How Forests Think* explored the inter-relationships between humans and non-humans in his anthropological work with an indigenous people, the Runa, who lived in Ecuador's Upper Amazon. The resultant work explored the complex interactions and co-dependant relationship of the forest, humans and animals including the ways in which these influenced the Runa's daily lives and how the Runa perceived all beings as human which reframed their interactions with each other. The engagements detail how the forest and the ecosystem impact on the Runa's lives and perceptions of wider life (i.e. the dream world and death) when he states 'there will be other Runa, other ways of being human – ones that might

well also entangle nonhumans, ones that might call forth other spirits. And we must find ways to listen' (Kohn, 2013: 227).

Human relationships with(in) the natural world

In this section I note the challenges of fracturing the nature: culture binary. However, the dominant worldview of human separateness is strong. Even though humans might think about the 'voice' of the natural world, when it comes to 'giving voice' it tends to be anthropomorphosized rather than decentring the human. All Early Years Teachers had thoughts about how humans were in relations with the natural world. In the extract detailed below Sarah starts to consider how relations-with(in)-the-natural world are materialised (c.f. critically reflective practitioner, Anderson, 2014b; Whalley, 2011). She considered the call of the natural world and wondered if humans could actually hear its call:

In our society, at least in urban areas, we are almost completely cut off from the natural world. We do not see our food growing or living before we eat it. We do not have to kill what we eat or butcher it to eat. We do not eat seasonally according to what is growing at the time so we lose a sense of the seasons. We do not have to hunt for or gather our food so we have become disconnected from our own physical beings which form a part of that natural world. We live largely sedentary lives, sometimes not even walking as we drive from office to home. Walking upstairs at work seems virtuous. The result is our bodies suffer and degrade. We are designed for movement.

What are the results of this disconnect? We are dangerously unaware of the state of the natural world around us. Biodiversity decreases by 40% in half a century but we are unaware of the calamity as we don't see that wildlife anyway; we are in our offices or homes. Our bodies also complain, our weight blooms as we no longer have to run and chase to find our food but rather take it off a shelf in the supermarket. Diabetes and other weight related illnesses increase exponentially.

What happens when we remove some of these barriers? Consider the difference in a forest school setting when children interact with nature. We have even coined the phrase 'Nature Deficit Disorder' to explain the detrimental effects of children's disconnect from nature. Consider what happens when someone starts walking regularly in the countryside because they want to get fit or they have a dog. In our own selves when we exercise

outdoors through simple walking our mood is lifted. We know this through scientific research; doctors will say it releases endorphins. It is how we are meant to feel.

I would put this question another way. The natural world speaks loudly for itself. It calls to us and we react instinctively to it - how many people escape in to the countryside or to the sea for a holiday? There's less to do there than in the town but they know that just by being there, they will be better. So, I would put the question another way. The natural world speaks loudly for itself so how is it being drowned out, how have we distanced ourselves so much and insulated ourselves so much that we can no longer hear it? (reflective diary).

Sarah engages in a wider debate which concerns the relationship of humans and the natural world. This debate questions what nature is, how it is defined and what gets to count as nature (Haraway and Goodeve, 2000). Grebowicz and Merrick (2013) used the work of Haraway as a starting point to problematize definitions of the natural world. They considered the political, philosophical, representational, and scientific view of the natural world and concluded that definitions are 'intertwined with the way we define humans and how/why/when we separate the human from the non-human' (Grebowicz and Merrick, 2013: 30). Furthermore, they proposed that the critical/queer view of nature is not easily separated from nature proposed by a Cartesian scientific discourse.

Dilemmas and challenges with/in relations with nature

These dilemmas and challenges are revealed in Sarah's comments. The binary segmentarity of the nature: culture divide is documented in the diary excerpt where human separation from food production, awareness of biodiversity, and lack of engagement with natural spaces are revealed. Some of these concerns have been taken up by feminist writers who have argued on biological/nature imperatives such as gender (Colebrook, 2008), evolution and natural selection (Grosz, 2008a), reification of nature (Haraway, 2008a), and environmental disasters (Tuana, 2008). The commonality with these works is exploding the dualism which surrounds nature and culture with an aim to rethink and reposition the boundaries of science and the humanities. Sarah starts to collapse these dualisms when she considers how nature and culture can be co-implicated. In her final paragraph, she alludes that nature speaks very loudly, it is humans who choose not to listen. With this comment, she troubles the notion of who speaks for nature. If we postulate that humans speak for nature we already silence, decontextualize, and disempower nature in more human terms. In making this comment Sarah becoming-professional is attentive to nature's articulation and relationality.

I suggest this excerpt reinforces the hegemonic positioning of culture over nature. Segmented ways of thinking natural engagements sees humans-as-masterful, idealizing our relationship (however one sided) with the natural world. Haraway (2008a) discussed how historically located stories about the natural world demarcate and maintain the discontinuity of nature and culture. She contemplated how the relationship between the two has gone awry and questioned where the human is positioned in natural engagements. In her view, our constant re-affirmation of the natural world via our modern engagement only seeks to widen the gap between nature and culture. She asked us to renew the conversation we have with the natural world to move away from 'reification, possession, appropriation, and nostalgia' (Haraway, 2008a: 158). Furthermore, Taylor (2013) draws on Haraway when she troubles these hegemonic positions to move towards a mutual collaboration between humans and the more-than-human world. What this excerpt shows is affording non-humans the same primacy of humans is not neutral work. Even though one might start to re-configure relationality this is coloured by the always already dominant human centred world view. I concur as this move promotes a wider political and ethical engagement with nature which allows for bodies (in the broadest sense) to co-constitute a new relationship where affect and desire shape the inter-relationships seen within and between humans and nature.

“Mr Tree can you fell out another pine cone for me?”

This final section allows me to widen the relational dialogue between humans and the natural world. I argue that exploring Indigenous ontologies generates different conditions of possibility for more-than-human relations. The excerpt engages trees, Claire and the children she cares for and formed part of the observation that occurred on my third visit. It is within this event that a point of departure is revealed as human and more-than-human relationality is explored. I have used this as an example to trouble the hegemonic positioning of culture within the nature: culture framing, although, at points Claire does revert to a reified notion of nature. In this instance, we had gone to visit a National Trust property which consisted of a stately home set within large grounds. Claire and the children visited this site regularly and explored different aspects on each visit. The grounds surrounded the stately home and within them there was a juxtaposition of manicured gardens and more wild natural settings of woodlands, grasslands, and a beach access. This excerpt details an entanglement with some old pine trees which were part of the more manicured parkland near the stately home. Due to the length of this excerpt part of the analysis is read through the excerpt. The reasoning behind this was to more closely link the analysis and the data where the analysis is allowed to become-with the data:

We reach a green open space with huge conifer trees planted – two catch my attention they are as wide as they are tall. The conifers are growing on a manicured lawn which is surrounded by mature shrubs on three sides. At this time of year many of the shrubs were in bloom and a swathe of purple rhododendron flowers was visible. Behind us was the road/pathway which was used by walkers and certain permitted vehicles, further on behind the road/pathway was the stately home.

Claire explained that these were her favourite trees on this site ‘They have been here since Queen Victoria’s reign – I wonder what stories they can tell?’

Figure 26 Trees on the lawn



Considering tree life

In this comment, Claire starts to consider wider conceptualizations of life – here tree life. It could be suggested that Claire takes an anthropocentric view of trees in which she sees them narrate stories of past events. Throughout my engagements with Claire I discovered that she viewed nature in a different way to the other teachers – Claire preferred being outdoors and did not suggest that nature was solely a learning environment (c.f. practitioners leaving the EYFS, Simpson, 2010). For her it was part of her and the children’s entanglement with ‘life’ revealing the natural world as a co-constitutive part of who she is/was. Her comments could reinforce the nature: culture binary and as Grebowicz and Merrick (2013) suggest becoming agents for the natural world by proxy is an act of silencing. However, Haraway also reminds us ‘plants are consummate communicators in a vast terran array of modalities, making and exchanging meanings among and between an astonishing array of associates across the taxa of living

beings' (Haraway, 2013: 142). Tree communication is detailed by Kohn (2013) who presents the ways in which indigenous Runa in the Upper Amazon have connected relationships with the forest. Kohn states that 'allowing its forests to think its way through us can help us appreciate how we too are always, in some way or another, embedded in such webs and how we might do conceptual work with this fact' (2013: 42). Therefore, perhaps tree-life does narrate a story and perhaps this story can be heard by an assemblage of humans and non-human worlds.

The children park their scooters under one of the bigger trees and Claire puts down her backpack. Aiko and James find sticks that were on the ground and bash them against the bark/trunk of the tree. Claire exclaimed 'Mr Tree – will he like that?' Aiko stopped and looked thoughtful 'No, maybe we should bash the ground!' She then encouraged James to stop hitting the tree and they both started to hit the ground with their sticks.

Figure 27 Aiko and James



The Tree becomes gendered as masculine; I did ponder why this is case when nature is traditionally seen as feminine (Mother Nature), however, it must be noted that Freud considered the phallic connotations of trees. In *A Cyborg Manifesto* (Haraway, 1991) deconstructed feminist thought and gender where she proposed the cyborg to trouble nature: culture boundaries. She used this figuration as a means of politically engaging in wider nature: culture debates. The gendering of nature as female already suggests an othering within the human: nature binary. By drawing on Haraway at this juncture I am mindful that 'cyborgs are not reverent; they do not re-member the cosmos' (1991: 151) and I take Claire's comment as an

unconscious troubling of the nature: culture divide. Additionally, Claire becoming-professional explored whether the tree produced an emotional response to being hit. The children considered the tree's feelings alongside their own starting to collapse the nature: culture binary and this moves them to direct their hits to the seemingly inert ground. When considering actants, all more-than-human objects can be seen as part of the flat ontology which could render this direction from Claire problematic. However, I question whether the naming of the tree as Mr. Tree already framed it of a higher status to the lawn/ground which remained un-named, a surface to walk on rather than a dynamic actant in this scenario.

Figure 28 'Stick bashing'



When they tire of 'stick bashing' Aiko and James play hide and seek around the tree each taking it in turns to hide behind the large trunk as the other counts to 10 before trying to find their friend. The tree's trunk was so big an adult could not reach around it with their arms and Aiko and James circle the tree giggling as they try to hide and find each other. After a short while Aiko announces 'I don't want to play Hide and Seek anymore!' and James response is 'OK, let's play sword fighting!' They look on the ground and all find suitable sticks to become swords. They get ready for sword fighting and Claire exclaims 'En-garde!' James and Aiko swordfight against Claire as Claire tries to parry the blows coming from left and right. The swords catch her body and Claire feigns death, within minutes she comes alive again to James and Aiko's chorus of 'We're going to chop your

leg off!’ There is lots of leg chopping with sticks as the three of them run and hop round the trees with chopped off legs which soon regenerate.

Tree: human hybrids and tree gifts

As Claire and the children pick up sticks becoming-tree sees the sticks as extensions for arms. It is in this trans-corporeal moment (Alaimo, 2008) that the tree-human hybridization occurs. I argue that a becoming-professional cyborg moment is revealed, albeit a tree-human cyborgian moment rather than a human-technology cyborgian moment, the sticks become arm extensions and at the molecular level an electron transfer, a fusion, occurs between sticks and skin. Initially these assimilated stick arms have a purpose of sword fighting and leg chopping. Furthermore, akin to Haraway’s (1991) cyborg the tree-human hybrid has regenerative powers as legs grow back almost immediately after they are cut off.

Claire finds a pinecone flower on the floor; it had fallen out of the tree. James says ‘Put it back in the tree’ however Aiko disagrees ‘I don’t want to, the tree has given it to you!’ She picks it up the pinecone nestling it in her hands. James looks at Claire and then back to the tree looking upwards into its higher branches asking ‘Mr Tree I want my pine cone’. After a few moments, nothing happens, Claire found another pinecone near to where she was standing and threw it so it landed in front of James as if it had fallen from the tree. James picks it up and requests ‘Mr Tree can you fell out another pine cone for me?’ They look around the base of the tree for more but cannot see any more.

In this part of the encounter the communication with the tree is with regard to the production of a number of ‘gifts’ (Haraway, 2013). Moreover, gifts are part of an animist metaphysics as detailed in the work of Viveiros de Castro (2004; 2009) and Kohn (2013). These gifts include the sticks discovered on the ground, which form the trans-corporeal cyborg arms used for sword fighting, and pinecone flowers. The initial discussion between James and Aiko was a debate as to whether the pinecone flowers should be returned to the tree. This culminated with the agreement that these gifts were given by the tree for them to keep. The children’s discussion and subsequent decision to keep the pinecone flowers can be seen as the potentiality of tree-human communication using a shared language of ‘gifts’. This moment of becoming-minoritarian/minor gesture collapses the nature: culture binary and tree-human flat ontological relations are revealed.

Figure 29 Pinecone gifts



As they walk across the lawn towards the second tree the swords turn into wands and they are whooshing magic around each other.

Aiko turns to Claire and says ‘I’m going to turn you into a frog and then look for treasure!’ as she whooshes her wand. They forage for treasure and soon there is a pile of items on the lawn near the next pine tree including a feather, some sticks, and a small pinecone flower. Aiko turned towards James and whooshes her wand ‘Abracadabra turn James into a tree!’

Moving across the grass the tree-human cyborg transforms from sword fighting to magic wand whooshing. Each moment of becoming-professional, becoming-minoritarian/minor gesture is connected by the stick arms as becoming-with-tree is produced in a multiplicity of rhizomatic ways. After foraging the tree-human becoming-magical re-enters the rhizome and reveals James-as-tree as the culmination of the hybridization.

Life under tree roots

They look around the bottom of this second tree and see some hollows and holes under the tree root. Claire explains ‘these are fairy houses’ as they peer and poke their sticks into the holes they don’t see anything. James turned to Claire and asks ‘Can we fight with our sticks?’ Claire looks at both of them and replies ‘Yes don’t hurt each other – there are lots of fairy houses – who lives down there?’ This question distracts James and he replies ‘A badger? Or a beetle!’ after thinking for a moment. Claire reflects and replies ‘Sometimes badgers are quite big – I am not sure he will fit in there! A-hah I have found a mini fairy sword.’

This excerpt and resultant analysis details an entanglement which blurs the borders of nature and culture. As Claire and the children crouch down they consider how life might proceed under the tree within its roots. The fairy houses could be inhabited by small fairies, badgers (small ones) and beetles. They use tree-human cyborg stick-arms to explore the cracks and fissures made by the roots trying to sense what might live there. These explorations include communication with the tree on a number of levels (Haraway, 2013), a fusion of tree-human-hybrid to reveal a cyborg with stick extensions to human arms. The tree-human-hybrid then takes a line of flight becoming-magical as the stick-arms become magic-wand-arms with a final transformation to allow for an exploration of life under a tree root.

Figure 30 Life under tree roots



Indigenous ontologies and trees

Anthropological scholars have explored Indigenous ontologies (for example, Viveiros de Castro 2004, 2009; Kohn, 2013) and have detailed human and non-human relations as animism. Here, animism is an ontological position where non-humans are endowed with human dispositions, however, these ontological positions are nuanced and multiple depending on the Indigenous population (Pederson, 2001). For example, the Maori relationship with the land, rivers and mountains of their ancestors are conceptualized as vibrant (Jones and Hoskins, 2016) as are those of Amerindian Cosmologies (Viveiros de Castro 2004, 2009; Kohn, 2013). Tree-human relations can be seen as an animistic dance as Pine trees and humans play together. The Pine trees produce a range of gifts for Claire and the children to play with, for example, sticks and pine cones. There are also discussions with trees and a consideration of tree feelings, memories and histories. These engagements provide a reimagining of the park and gardens in a similar debate to that had by Kohn (2013) with the Runa in Ecuador. Kohn considers how the non-human is not seen as a background and meaningless outside of a human conceptualization. He details ‘mean-ings – means-end relations, striving, purpose, telos, intentions, functions and significance’ (Kohn, 2013:72) are present in human and non-human dialogues. These more-than-human mean-ings to life are vibrant and vibratory and do not involve human meaning-making. I argue trees think in this extract, albeit a thinking that is commensurate with tree-ness and not human-ness. In this tree thinking they enmesh human’s play on the lawn and the tree-human dance continues as Claire, James and Aiko are willing participants in tree-human conversations.

Figure 31 Thinking with trees



Movements and the natural world

There are a number of movements and inter-relations revealed between the human actors and more-than-human actants in this space. Taylor (2013) considers that the common worlds of children are made from the heterogeneous relations which collide between living beings (actors) and more-than-human actants (which is how she entitles things and non-living forces).

Moreover, I have shown that Claire, Aiko, and James are part of this dance as they reveal their material and discursive connections with the trees in the stately home grounds. This relationality sees earthworm movements/moments of becoming-minoritarian/minor gesture as talking with trees (and receiving gifts) and using sticks as cyborg prosthetics (swords and wands). Duhn (2012) considers how places can be used to frame and cement identity and to inscribe power relations both within human groupings and between humans and more-than-human worlds. She acknowledged the challenges when considering a posthuman engagement with place and details that to overcome the traditional worldview that 'a deviation from anthropocentric notions may be to acknowledge that place is a mystery' (Duhn, 2012: 102). I reveal how Claire, Aiko, and James embrace the mystery of the tree-lawn-human assemblage as they play; the heterogeneous items/objects coalesce with the human forms to produce new interpretations of tree-human interactions and communication.

This section sees humans enmeshed in the natural world where debates reveal the interplay between the nature: culture divide. Sarah discussed how the relationship between humans and the natural world have gone awry and concludes that nature talks but humans often fail to listen. I have used the work of Haraway (2008a) and a number of New Material Feminists to explore how the political and ethical relationships with nature are inscribed by the way humans view their nature: culture relations. In her excerpt, Sarah becoming-professional starts to collapse binary dualistic views of nature and culture to disrupt hegemonic positioning of humans. She articulated a means to move past humans reification and decontextualization of nature but it is hard for her to see how this can be actualized with the dominant human view of nature speaking more loudly in this monologue. Furthermore, Claire and the children explore tree: human inter-relationships and communications (Haraway, 2013) during an encounter with trees at a National Trust property. I use Haraway's cyborg theorisations (1991) to explore tree: human hybridization and drawn on the work of Kohn (2013) and Viveiros de Castro (2004; 2009) to support different conceptualizations of tree: human relations. Tree: human communication takes many forms from hybrid stick arms, wondering about tree memories and receiving gifts from trees. I argued that the borders of nature and culture are blurred in these encounters, and use the work of anthropologists such as Viveiros de Castro (2004) and Kohn

(2013) to highlight animistic relations and thinking with trees these revealing an anarchival relay to decentre the human from the co-relational entanglements.

Continuation

In this chapter I worked with the proposition ‘practice entangling with Early Years Teacher assemblages’ and intended to explore the affective desiring relations with Early Years Teachers and a range of actants. When working with a flat ontology (DeLanda, 2002) humans are not accorded a position of privilege, they are seen as no more or no less than other bodies within the world. Even the notion of human intentionality is problematic as assemblages are random connections with and between bodies on a plane of immanence (May, 2005) and the notion of intention ties the body to a subject and identity therefore making it transcendent. Herein lies some of the difficulties of actualizing the theory of Deleuze (1983; 1990; 1992b; 1993; 1994; 2001) and Deleuze and Guattari (1983; 1987; 1994). The eternal return sees life and bodies in a constant flow and flux as forces congeal and coagulate connections within assemblages which are devoid of direction and intentionality. I have tried to apply/engage/enmesh these Deleuzo-Guattarian concepts (in)(on) the field of ECEC which is a human centred and an intentionally humanist endeavour. However, I consider that from difficulties and challenges both excitement and experimentation can be revealed. By disturbing life, an immanent life between connecting bodies, I can engage in an ethical and political project to trouble and disrupt flows of power and the binaries which underpin modern Western philosophical projects. Furthermore, I have employed the metaphor of the earthworm to note how life gets composted and relations become distributed. This notion draws from Barad (2014) and Haraway (2016) who use the earthworm as an agitator or representational thinking. Moreover, I concur with Jane Bennett (2010) who explores the life of worms to conceptualize the political dimensions of more-than-human relations.

Tapestry flows and forces

Flows and forces of affect and desire (Deleuze and Guattari, 1987) have been discovered where I argued Early Years Teachers became-with observations, assessment and planning. Tapestry being-teacher was questioned and how the living assessment and (un)planning documents impact on wider life was considered. I used affect to conceptualize Tapestry-life as a modulation which engendered becoming-minoritarian/minor gesture. The nature of power

circulations were explored and coding and dividuals (Deleuze, 1992) were explored. I argued that Tapestry modulations produced the dividual who became enveloped in technology and wider expected neo-liberal teacher meta-narratives. The resultant connections saw machinic assemblages plugging into each other and Early Years Teachers becoming-professional in their interactions with these bodies. Earthworm disturbances explored the connections between components of the assemblages where becoming-professional and being-teacher were experienced by all relational bodies. Ephemeral newness was produced within these anarchival zones of indiscernibility as the bodies were in flux and flow. Furthermore, I argue Tapestry has a dual effect of claiming status as being-teacher and a neo-liberal de-valorisation affect as it reframed a certain form of professionalism. The Early Years Teachers swing between becoming-professional and being-teacher caused by Tapestry as it either reinscribes their psyche or produces certain emotional responses. They try to challenge their status of dividual but curricula and regulatory requirements make that more of a challenge. When becoming-professional is produced a more-than-human engagement is revealed.

Becoming-with classroom objects and non-human ‘voice’

The nature of becoming-with classroom objects was explored, where I used Haraway’s cyborg (1991) figuration to consider Stella becoming-with the rice tray. Furthermore, Deleuze and Guattari’s (1987) body without organs (BwO) and Alaimo’s (2008) trans-corporeality were used as alternative diffractive connections to Stella and the rice tray. I considered how bodies were leaky (Longhurst, 2001) and that skin need not be the boundary to human bodies (Haraway, 2004). In this way, Stella and the rice tray implements became hybridized as electrons were shared between skin, flesh, and plastic as part of the fusion/hybridization/transformation. Additionally, Bennett’s (2010) concept of thing power and the vibrancy of materials were enmeshed with classroom resources and the distribution of thing power and material agency was considered. Moreover, I theorised matter out of place within the diffractive irruption where real resources in the classroom provided an analytical stutter. I wanted to move on from prosopopoeia and privileging speaking for and potentially silencing matter and the material world. This allowed me to propose that matter and the material world makes itself heard/visible/vibrant and by paying attention to materials, affect, distributed agentic assemblages and their co-implication with humans its ‘voice’ can be perceived.

Entanglements with the natural world

Finally, I entangled with the relationships between humans and the natural world. This entanglement is also considered a site of contestation as nature has long been romanticised and binarized in Cartesian philosophical thought. Furthermore, I introduced thinking of indigenous Ecuadorians, the Runa, from the Upper Amazon (Kohn, 2013), Maori ontologies (Jones and Hoskins, 2016), and Amerindian Cosmology (Viveiros de Castro, 2004: 2009) as a counterpoint to the human-centric Cartesian view. Sarah examined some of these disjunctions and I draw on the work of Haraway (1991; 2013) and a range of (eco)feminists to unpack a more relational experience with nature. Additionally, Claire reveals an entanglement with pine trees and I contemplate both Haraway (1991: 2014) and Taylor (2013) in an attempt to ‘queer’ the relationship between humans and the natural world by troubling conceptualizations of plant-human communication and hybridization. Moreover, I employ Indigenous ontological concepts such as animism as a means to theorise tree: human communication. Both these excerpts were examples of the earthworm (re)turning the soil of expected professional knowledge where generative connections formed in smoother anarchival anarchic space and new ways were explored in an attempt to dissolve the nature: culture binary.

Afterword – data encounters

What I have attempted to do in these two data encounters chapters is reveal how humans and non-humans in more-than-human engagements are co-implicated bodies in broader conceptualizations of life. I have taken lines of flight with theory and actualized experimentation with difference, repetition, and the eternal return. This has allowed me to explore what MacLure entitled clinical practice (2015) as I have diffractively considered entanglements with Early Years Teachers and their wider world. Earthworm movements/moment have allowed me to see/think/feel Early Years Teachers relations-in-the-world differently and I am co-joined to this experimentation as part of the eternal return. The resultant diffractive analysis sees an engagement with a wider ethical and political view of Early Years Teachers relations-in-the-world which has been posited within a flat ontology on a plane of immanence. Here the polyvocality of humans, non-humans and more-than-human entanglements have been revealed in a range of earthworm (an)archival relays.

CHAPTER SIX:

RHIZOME EXIT POINT SOMEWHERE ELSE

It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what descriptions describe descriptions, what ties tie ties. It matters what stories make worlds, what worlds make stories.

Donna J. Haraway (2016: 12)

What is/was this thesis?

This thesis has been a story about matter, bodies and policy and, as Donna Haraway suggests, a story also of knots and ties and how these ‘make worlds’. The world I have been exploring is that of the professional lives of Early Years Teachers and how these lives are tied and knotted with children and the non-human in multiple forms. But working with the propositions ‘explore affirmative more-than-human Early Years Teacher relations’ and ‘enact conditions to move beyond the dehumanised precarious feminised ECEC professional’ I have drawn upon my own experiences as an Early Years Teacher, which made me aware of the need to consider worldly justice for a group composed predominantly of women who had been marginalised in policy and, I argue, dehumanised within the neo-liberal capitalist mode of existence (Snaza, 2015). It was this experience of ‘dehumanisation’ that I traced through a cartography of the literature of policy, research, and accepted notions of professional practice, which enforce a deficit model of Early Years Teaching (chapter two pages 23 - 50). Also, I have explored how the enactment of these forms in Early Years Teaching suggests another story: an expanded field of relations and possibilities. Building on the work of posthuman scholars in ECEC (Olsson, 2009; Lenz Taguchi, 2010; Osgood and Giugni, 2015b; Otterstad and Waterhouse, 2015; Bennett, 2016; Pacini-Ketchabaw *et al.*, 2016), has allowed me to develop an understanding of this rich world of relations between the human and the non-human into an understanding of the Early Years Teacher experience as one that is a ‘more-than-human’ assemblage.

This chapter draws together the rhizomatic strands of experience and posthuman theorising that I have developed in this thesis. My starting concern was to attend to the connectivity, relationality, and heterogeneity, which occur in Early Years Teaching. The challenge of such an expansive view is how to organise and express these relations in ways which do not unduly limit them or leave them rigid. Deleuze (1983) has noted how the ‘dice

throw' of existence can give rise to new events and new versions of life. Having worked in education for almost 10 years (initially in ECEC, then in Higher Education), I am mindful of how the possibilities of education have become segmented into linear expectations of learning and development as stable 'stages', fixed curricula, repeated assessment, and a focus on deliverables. This has intensified during the implementation of neo-liberal human-capital theory, which drives education policy to orient education to the 'market'. Therefore, my aim has been to recover the relationality in Early Years Teaching that has segmented into the limited and rigid forms of this vision of the human as 'capital'.

My contribution to the existing literature is to propose a more-than-human Early Years Teacher distributed subjectivity enacted within/between two fluid positions of 'becoming-professional' and 'being-teacher'. I have applied vital and dynamic Posthuman theorising to ECEC to argue that materiality is present and surrounds Early Years Teachers in policy, the classroom and in their teaching of children. Furthermore, my work has been concerned with relationality, and how this expanded form of relations in ECEC classrooms can reveal different enactments of policy. Working with the proposition 'what has been framed in successive policy and professional practice discourses for the Early Years Teacher' I traced and moved beyond the view of the Early Years Teachers as a 'dividual' subject to continual modulation due to their 'deficiencies' (Deleuze, 1992; Snaza 2015), in need of training and development to reach the status of 'human'. These micro-political and ethical acts, such as the development of the Early Years Teacher and the move past dominant discourses postulated by scholars such as Dahlberg and Moss (2005), note the entanglements of Early Years Teaching to reveal another world of relationality and connectivity. The hegemonic positioning of the highly feminised ECEC workforce linked to the contemporary professionalisation agenda in England allowed me to draw parallels between Deleuze's (1992) societies of control, where he noted power had shifted to the neo-liberal corporate machine which required a pliant and malleable workforce. I argued that policy and practice debates which encircle Early Years Teachers are a product of a neo-liberal capitalist view of education which posits ECEC as a site of the doubly-dehumanised human (Snaza, 2015) who is in need of education in order to become more fully human.

Drawing on both Snaza (2015) and Deleuze (1992) I noted the precarity of the ECEC sector in a landscape where low pay and limited opportunities for recognition and progression act as hegemonic markers for gendered imaginings of ECEC. Within control societies (Deleuze, 1992) continuous modulations are a means of surveillance and social control where training is required to attain human-ness but paradoxically this can never be fully realised due to the shifting employment requirements and nature of the modulations. This is prevalent in ECEC as recent curricula developments (DfE, 2014a) promoted the notion of the school ready child and the Early Years Teacher as facilitator to produce the required outcomes for transition to

compulsory education. These vistas for ECEC set the tone for the continuous modulations of both Early Years Teachers and children who are within a cycle of education as human capital theory which drives their identity (Tiqqun, 2012; Mirowski 2014). It has been argued that Posthumanist theorising is consonant with neo-liberal capitalism (Žižek, 2004; Hallward, 2006; Noys, 2010; Povinelli, 2016). Although I acknowledge these critiques, I proposed that by harnessing the potentia of this consonance I can turn Posthumans back (on)(through) the human capital view of ECEC. I argue that flows and segments, and productions and entanglements can afford a different means to explore relationality which juxtaposes the fluid and shifting subjectivities of ‘becoming-professional’ and ‘being-teacher’ (within)(through) Early Years Teacher relations.

I have moved beyond the established debates concerning Early Years Teacher professionalism (see pages 23 - 50) and used the positions of ‘becoming-professional’ and ‘being-teacher’ to express these entanglements with the material world. These are fluid forms, which already indicate resistance to the rigidity of the neo-liberal market model of ECEC and the segmenting effects of policy and expectations of professional practice. These two positions are not a simple binary, but express the tensions and co-existence of desires that reveal different ways of living. ‘Becoming-professional’ expresses those ‘becomings’ that stray from the path of the linear model of child as future worker and teacher as facilitator, while ‘being-teacher’ expresses the need to find security and stability within these processes. I argue that the more-than-human entanglements that I have presented in this thesis are moments of clinical practice - (MacLure, 2015), where different modes of living are realised. Furthermore, I have employed Early Years Teacher cartographic ruptures (pages 87 – 88) to explore how the fluid ‘becoming-professional’ and ‘being-teacher’ are influenced, and can be jarred, by the expectations of policy and professional practice.

Methodological disturbances

Having defined the focus of this research inquiry I turn to the methodological propositions for this ‘theorypractice’ exploration which flowed from ‘create generative post-qualitative inquiry’. When considering my own ontological position and the desire to reveal productive connective Early Years Teacher relations I employed the Deleuzo-Guattarian (1987) concepts of becoming and becoming-minoritarian. Furthermore, as part of this inquiry I wanted to consider different activations of research practice as a means to reconfigure and trouble the traditional views of methodology and methods. A wider commitment to Posthuman theorising drew me to the work

of scholars undertaking post-qualitative research (for example Lather and St. Pierre, 2013; Koro-Ljungberg, 2016 and Taylor, 2016a). I have grappled with and become entangled in post-qualitative research and have sought for a means to release thinking-in-movement (Manning and Massumi, 2014) for my research with Early Years Teachers.

My methodological proposition for this inquiry was the material-ethno-carto-graphy which enabled me to reconfigure a methodology which I felt would release potential for both human and non-human participation in the inquiry. Here the move away from discourse and social construction to discourse and material and social production allows for new more-than-human vistas to be opened up for Early Years Teachers. I have reconfigured methods-as-affinity-groups as a technicity (Manning, 2016) to support data generation in this inquiry and I had argued in an earlier paper that new method's practice was not a pre-requisite for my inquiry, but like Springgay (2015) and Springgay and Truman (2017) I contended that new ways to view methods was needed (Fairchild, 2016b). Using more traditional ethnographic methods such as semi-structured interviews, non-participant observations, images and visual methods, research and participant directed diaries allowed me to reconfigure methods to reveal the flows and intensities of both human and non-humans in more-than-human interactions.

Earthworm disturbances – reimagining new possibilities for Early Years Teachers

Moving beyond the problematization of policy and expectations of professional practice that reifies a certain type of Early Years Teacher subjectivity I explored how more-than-human relations enrich and generate different views of Early Years Teachers. Working with the proposition 'practice entangling with Early Years Teacher assemblages' I have theorised the positions of 'being-teacher' and 'becoming-professional' as a means to highlight the flux and flows of teacher subjectivities. 'Being-teacher' and 'becoming-professional' are applied to both human and non-humans alike, for example how spaces can promote 'being-teacher' and how materials can produce 'becoming-professional'. It is what is revealed (within)(between) these position that highlight how life might proceed. Furthermore, I have employed the figuration of the earthworm as a means to break apart the rational human subject position where modulations and self-reflection frame the human psyche. The earthworm becomes an agitator, it tunnels rhizomatically and traces relational lines of flight between humans and non-humans. The (de)compo(s)(t)ed human subject can then become-with non-human as distributed more-than-human subject positions are reimagined.

Normative expectations produce the segmented territorialised teacher as a dividual (Deleuze, 1992). The position of 'being-teacher' is a response to these modulations and is a

contradictory position. Early Years Teachers have long sought legitimacy and recognition (Nutbrown, 2012; 2013) against the view of the feminised deficient professional (for example Vincent and Braun, 2011; Payler and Locke, 2013). Adopting a ‘being-teacher’ mode of life can feel comfort(ing)(able) as expected professional responsibilities are fulfilled (Hevey, 2013). Paradoxically this long fought for status is confounded by the need for further upskilling and training which means attainment of status is seen as an unreachable goal (DfE, 2013b). In this thesis ‘being-teacher’ has been employed to note how Early Years Teacher practice dovetails with the expectations of ECEC; for example, Hannah and classroom zoning, Sarah and regulatory requirements, Rose and the use of Montessori material, and Claire as she justified her children’s learning. The position of ‘being-teacher’ is mediated and modulated by policy, spaces, materials, classrooms and gardens, child and parental expectations. Interestingly the use of the online learning journal, Tapestry, revealed the closest connection to the Early Years Teacher as dividual. I argued that Tapestry de-valorises professionalism by segmenting and territorializing Early Years Teachers practice producing the notion of the dividual. Tapestry affects every aspect of Early Years Teacher practice and drives how spaces are set up and resourced and how children’s learning is produced. The living Tapestry machinic assemblage presents neo-liberal human capital theory in action. It is important to note that ‘being-teacher’ should not be viewed as part of a binary. It is an expression of the affective world of Early Years Teachers and is formed by particular modes of existence produced by a range of relational connections.

Relations are further enriched in the distributed subjectivity of ‘becoming-professional’. These movement/moments of more-than-human entanglements reveal an alternative subjectivity which moves beyond the segmentarity present in being-teacher. I argued that ‘becoming-professional’ is a minoritarian position which resists the conditions of the dominance of neo-liberalism and expectations of professional practice. In these experiences ‘becoming-professional’ is a deterritorialization which takes the more-than-human body in new directions where humans and non-humans generate alternative distributed subjectivities; for example, Rose and the children’s reaction to the ‘big hall’, Sarah’s melodic and harmonic engagement with other childminders and the resources they produce, or Claire and the children becoming-superheroes on a woodland walk. These entanglements are ephemeral as space is either overcoded or smoothed; for example, Claire at the beach and the Dragon Tree, or Hannah and the mats. Moreover, these shifting positions can counter the production of the dividual, for example as Rose questions the usage of Tapestry becoming-(un)planned is the response. The more-than-human also entangles with material objects and their resultant materiality. Here ‘becoming-professional’ is revealed as Rose is enmeshed with Montessori material, Hannah and

classroom actants which are vital and agentic, and the material ‘voice’ is explored. Furthermore, relations with the natural world note the challenges of adopting a more-than-human position, as Sarah started to decentre the nature: culture binary. The more-than-human can be sensed in Sarah’s monologue but is also silenced and anthropomorphised as it becomes hard to move beyond human centred world views. Indigenous ontologies can also reveal more-than-human relations where the human and non-human binary becomes flattened as Claire and the children in tree: human relations reveal an animistic dance of relationality.

I now want to consider how these relations can help provide new generative imaginings for Early Years Teachers. I was initially concerned as to whether I could reconcile my feminist position and the desire for social justice with a move away from identity categories, and I note the work of those who have sought to advance the feminist cause (for example Haraway, 1988; Butler, 1990; Osgood, 2012). Furthermore, I also considered the concerns of scholars such as Grosz (1994), who questioned how Posthumanism could answer some of the phallogentric hegemonic discourses surrounding women. This was bought home to me when lines of flight I followed in my work reterritorialized hegemonic gendered positions of the ‘hair or care’ discourse of professionalism (Vincent and Braun, 2010) and expected gendered behaviour in classrooms (Davies, 2003). These negotiations are important as they reinforce the view that Posthumanism is not a means to resolve hegemony. This is acknowledged by Deleuze and Guattari (1987), who note that the anarchic BwO is not always self-sustaining and that suppleness does not always promote conditions for redemption. However, what I do argue is that tracing the fluxes and flows of ‘becoming-professional’ and ‘being-teacher’ can help explore and disrupt the traditional masculine neo-liberal world views of ECEC (Osgood, 2006a). The more-than-human in this inquiry is part of vibrant, material, gendered, human, and non-human assemblages and these ephemeral moments of becoming-minoritarian can generate a different view of the feminised Early Years Teacher becoming-woman. These moments of situatedness reveal the nuances of Early Years Teacher life and I drew on Colebrook (2002), Braidotti (2007) and Van der Tuin (2015) who note the possibilities of Posthuman theorising for feminist work. I argue the more-than-human positions of ‘becoming-professional’ and ‘being-teacher’ allows me to ask different feminist questions; for example, ‘explore affirmative more-than-human Early Years Teacher relations’ and ‘enact conditions to move beyond the dehumanised precarious feminised ECEC professional’.

I have started the more-than-human exploration in thesis and like the ouroboros I note that part of the circular process of the doctorate is to link back to the policy and professional practice literature. The position of ‘being-teacher’ could reflect some of the wider meta-narratives discussed in the literature (for example Sylva *et al.*, 2004; Taggart *et al.*, 2015). Furthermore, ‘becoming-professional’ could be seen as the agentic change agent of the Early

Years Teacher was first proposed as (CWDC, 2008). However, putting Posthumanist theory to work has allowed me to conceptualize a more-than-human in enriched relations with other humans and non-humans as a move beyond current notion of subjectivity. I intend to further develop the more-than-human Early Years Teacher as a site of relationality and distributed subjectivity. In this thesis I have only explored a microscopic set of relations and am mindful my four case study events reflect only a small part of the sector. Future work will continue to develop the more-than-human concept and engage in a dialogue with Posthumanist theorising and current literature on ECEC practice. This also includes paying attention to the way in which post-qualitative work can be employed productively to map and chart Posthuman forces and flows. Furthermore, the figuration of the earthworm provides avenues to develop future thinking on both (de)compo(s)(t)ed subjectivity and research practice.

Working at the limits

In any research it is important to consider the limitations within the work and this inquiry is no exception. This sense of limitations can also be reconfigured as a site to think new relations that take place at the limit. While I have not attempted to provide a grand narrative of the professional lives of Early Years Teachers, my work has been concerned with exploring the possibilities of new stories and new worlds that exist in those lives and at the limits of conventional models of professional identity. This practice involves recognising the relationality of my own work to a series of debates, research, problematizations, and networks of research. Working at the limits of language, inquiry and ‘theorypractice’ involves experimentation and thinking/feeling/doing research practice and analysis in diverse ways. While working with a small sample of humans, primarily four Early Years Teachers, my research has revealed much larger networks and relations at work, from policy, to children, to a range of non-human actants. My own research practice has also been embedded in wider networks, drawing not only on my own experience, but also research groups, my supervisory team, and the wider scholarly community (see Fairchild 2016a, 2016b and forthcoming). The aim has been to consider my own researcher responsibility/response-ability and the situatedness of my theorypractice and knowledge generation as a matter of relations (Haraway, 1988, 2008b; Koro-Ljungberg, 2016).

The actualization of Posthuman and Feminist New Materialist theorising has been a challenge to make a successful performance and a successful story. This has involved a process of questioning and problematization, thinking through how we might relate to the non-human while still telling the story of education as an experience that is human-centred. I have

developed my own arguments through interaction with a series of relations, however these are not claims to ‘absolute truths’ but rather to offer new stories that could actualize the plurality of Early Years Teacher relations-in-the-world. This is not the only story to be told, which would render this fluidity segmented and rigid (Massumi, 2015; Koro-Ljungberg, 2016). Instead, the aim of my material-ethno-carto-graphy and methods-as-affinity-groups has been to engage the human and the non-human together and to see these relationality as the source of a broader thinking of relations that can take account of the human and the non-human.

Closing/middling/beginning

When considering the focus of my doctoral inquiry I wanted to find a means to move past the policy and professional practice meta-narratives highlighted in the chapter entitled the Early Years Cartography. This desire has allowed me to further develop some of the more material current conceptualizations of the Early Years Teacher. My aim was to consider new ethical and political engagements and by building on the premise that as Early Years Teachers inhabit a material environment (Pacini-Ketchabaw *et al.*, 2016) I could consider wider conditions of possibility and what an entanglement with materiality might afford me. In this way I hoped to provide a counter-production to gendered and hegemonic views of the Early Years Teacher and ECEC child as the doubled dehumanised human (Snaza, 2015) of neo-liberal vistas. Drawing on Deleuze and Guattari’s (1987) notion of becoming-minoritarian allowed me to explore power flows and dynamics which reposition the ECEC sector as the minor turn which can engender ways of becoming-revolutionary. Furthermore, I drew on the work of Haraway (1988) who promoted the situatedness of feminist research as a means to explore multidimensional visions of subjectivity revealed as ‘contestation, deconstruction, passionate construction, webbed connections, and a hope for transformation of systems of knowledge and ways of seeing’ (Haraway, 1988: 585). My work with Early Years Teacher more-than-human relations-in-the-world has allowed me to push the boundaries of human subjectivity and move to a wider entanglement of situatedness and the subject distributed (in)(on) the borders of the human psyche with/through wider ECEC human and non-human assemblages.

Although this engagement with theorypractice has allowed me to become exhausted (Deleuze, 1995) and to employ the figuration of the earthworm (Barad, 2014; Benozzo *et al.*, under review) it is an inquiry that will never be truly finalised. I have presented my experimentations with Early Years Teacher in more-than-human relations but I am mindful that assemblages are always already in flux and flow and are never finalised. The ephemeral nature of life is processual and productive and the eternal return and differentiations (Deleuze and

Guattari, 1987) occur *ad infinitum* producing something new at each renewed actualization. Furthermore, rhizomatic earthworm connections are always in the middle, intermezzo, as new entry ways and exit ways and lines of flight are revealed. Bodies can enter the rhizome, connect, change and exit somewhere else as connectivity is tentacular; a process of connections, dropped connections and reconnections. The choice for the title of this thesis has been revealed as part of this wider connectivity '*Earthworm disturbances: the reimagining of relations in Early Childhood Education and Care*', however, this thesis actualized in another register could have been entitled differently. Posthuman and post-qualitative inquiry is not a closing or a beginning but a middling of life, and in this middling the theorypractice presented in this thesis has been revealed. My experiences during the four years of this inquiry have influenced and changed me. The change has manifested in my thinking with theory, and the ways in which I approach research practice. I have become accepting of not knowing where my work might take me as I become enmeshed in assemblages of ECEC, research, and wider life. I now move onto a new middling where life actualizes differently and I look forward to this ongoing journey of exploration and experimentation.

Appendices

Appendix 1 - Application for Ethical Approval

Form E1

For all staff and postgraduate students

This form should be used by ALL research students, taught postgraduate students and staff who wish to undertake research under the name of the University of Chichester.

THIS FORM MUST BE COMPLETED AND APPROVED by the relevant persons and approved by the relevant Committees prior to commencement of research. Full guidance on the Application process can be found at Appendix 2 and 5 in the Ethical Policy Framework.

APPLICANTS – if the study involves participants each Application must be submitted alongside relevant consent forms, information letters/sheets, and debriefing sheets where appropriate. This documentation should be version numbered and dated.

AUTHORISER:

Please categorise the application (A or B). For category A & B applications please ensure that the signed form and all relevant documentation is submitted to the Ethical Approval Sub-group (research@chi.ac.uk).

Where Applicants are postgraduate research students, supervisors should authorise this form; where applicants are staff members, their Head of Academic Department (or nominated signatory) should authorise this form; where applicants are Heads of Academic Departments, the relevant Deputy Dean (or nominated signatory) should authorise this form.

BOX 1: Basic information

Title of study:	
Becoming Early Years Teacher - working in the middle (working title)	
Name of Applicant:	Nicola Fairchild
Position of Applicant:	Senior Lecturer Childhood, Social Work and Social Care
Name of Authoriser:	Professor Janet McCray, Professor Vini Lander and Professor Ben Noys
Position of Authoriser:	PhD Supervisory Team

BOX 2: Authoriser assessment

Authoriser assessment: (please delete as appropriate)	Category A: Proceed OR Category B: Submit to the Ethical Approval Sub-group for Approval
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1. Brief description of purpose of study/rationale	
<p>This study will be undertaken for my Master of Philosophy leading to Doctor of Philosophy (MPhil/PhD) to be studied at the University of Southampton. This investigation will consider the emerging conceptual framework of Posthumanism and its relationship to the Early Years. This will allow me to provide an alternative lens on the understanding of professional identity formation and (re)imagine professional becomings (Fairchild, forthcoming) as a means of charting affective flows in and between Early Years Teacher assemblages which include human and non-human participants.</p>	
2. Does the study involve human participants? <i>NB: the University does not conduct research on animals. If your project involves animals in anyway please seek advice from the Ethical Approval Sub-Group before proceeding.</i>	Yes

If answer to Q2 is ‘No’ then proceed to Question 20a.

<i>Start of section dedicated to studies involving human participants</i>	
3. Brief description of methods: (include a justification for using the particular participant group)	
<p>A pilot study will be completed early into the MPhil phase to ascertain graduate leaders’ values with respect to the intersection of professional identity and policy, the outcomes will be used to refine the case studies. During the PhD phase I will be using 5 assemblage events (case study) approach and intend to complete this through qualitative semi-structured interviews, observations of graduate leader practice, photos of the environment (not including any children), maps of the environment/resources and how this/these is used by the graduate leaders and children and the analysis of graduate leaders’ (and researcher) reflective diaries which might focus around critical incidents in practice. The selected methods will allow for a mapping and charting of assemblages and the resultant affective flows of both the human and non-human participants.</p>	
4. Location of the study and details of any special facilities to be used:	
<p>Interviews may be held at the University or relevant Early Years setting. Observations of practice will be held at the relevant setting. For the purpose of this form the criteria for a ‘setting’ are a private nursery, children’s centre, voluntary nursery, charity nursery, child-minder, reception class or independent nursery. Currently none of the proposed settings are part of the UoC EYITT or ITT partnership.</p>	
5. Are there any conflicts of interests which need to be considered and addressed? (For example, does the research involve students whom you teach, colleagues, family members? Do any of the researchers or participants have any vested interest in achieving a particular outcome?)	No
<p><i>If conflicts of interest have arisen, indicate how they have been addressed:</i></p> <p>All participants will be existing graduate leaders, some of whom I may have taught in the past. I will ensure that my status as a researcher is confirmed before, and during, the research process. The consent sheets are annotated that the research will not impact employment or partnership arrangements in place for EYITT/ITT. I am no longer directly involved with the EYITT programme so some of the potential conflicts have been resolved. I have reflected on any possible conflicts of power as I used to be a tutor to some of the participants, to mitigate this I will ensure participants are aware that my research is not linked to assessment and outcomes of their role but is an exploration of their work with children and how they use the environment within their work.</p>	
6a. Is the study part of routine activity which involves persons with whom you normally work in a typical work context e.g. Teachers working with children in a classroom setting, researchers in the performing arts working with actors in a studio, or research involving students in an academic setting.	Yes

<p><i>Optional: Further information to justify answer to 6a</i> All aspects of this project will take place at the graduate leaders early years setting.</p>	
6b. Are the participants children or members of other vulnerable groups (e.g. elderly, those suffering from mental illness, those whose first language is not English)	No
<p><i>Please provide brief details:</i> Although children may be present during the observation of practice and appropriate consents will be sought.</p>	
<p><i>If the answer to 6a is 'No' and the answer to 6b 'Yes', this Application must be categorised as 'B'. If the answer to 6a is 'Yes' and the answer to 6b 'Yes', this Application could be categorised as 'A' or 'B'; the Authoriser would make a judgement depending on the activities and the context of the work. If the answer to 6a is 'Yes' and the answer to 6b 'No', this Application may be categorised as Category A.</i></p>	
<p>7. Basis for selection and rejection of participants in the study: <i>e.g. participants must be clinically obese adults; participants must be social workers over the age of 50; participants must have achieved Grade 5 in an appropriate musical instrument</i></p> <p>Participants will be selected via purposive sampling based on Early Years Professional/Teacher network connections. Participants need to work in an Early Years Setting and be a graduate leader. In addition participants must have used, or mentored a trainee, using the Teachers' Standards (Early Years).</p>	
8. Will any payment, gifts, rewards or inducements be offered to participants to take part in the study?	No
<p><i>Please provide brief details and a justification:</i></p>	
9a. Is the process of the study and/or its results likely to produce distress, anxiety or harm in the participants even if this would be what they would normally experience in your work with them?	No
<p>If you answered Yes to 9a, please answer 9b below: 9b. Is the process of the study and/or its results likely to produce distress or anxiety in the participants <i>beyond</i> what they would normally experience in your work with them? <i>If yes this Application must be categorised as 'B'</i></p>	Yes/No
<p><i>Please provide brief details:</i></p>	
<p>9c. What steps will you take to deal with any distress or anxiety produced? <i>E.g. have a relevant professional on-hand to support distressed/anxious participants. Careful signposting to counselling or other relevant professional services. Other follow-up support.</i></p> <p>I am not anticipating any distress but I would ensure that participants are aware that they can withdraw their data from the study at any time before data analysis without prejudice (01 June 2016). All data collected will be stored as detailed in section 15 and full participant and setting anonymity will be maintained by ensuring each participant is coded e.g. L1, L2 or be allocating a pseudonym.</p>	
10. Will the study involve withholding information or misleading participants as part of its methodology? <i>(Please refer to Section 10 of the Ethical Policy Framework for further guidance)</i>	No
<p><i>If 'yes' this Application must be categorised as 'B'</i> <i>Please provide details:</i></p>	

11a. Does your proposal raise other ethical issues apart from the potential for distress, anxiety, or harm?	Yes	
11b. If your answer to 11a. was 'yes', please briefly describe those ethical issues and how you intend to mitigate them and/or manage them in the proposed study.		
<p>This research will be subject to University of Chichester ethical approval which follows the British Educational Research Association (2011) guidance.</p> <p>Whilst the research is visiting settings I may observe the graduate leaders leadership and personal practice. Consent will be sought form all adults and parents of children who may form part of this observation (In many settings blanket consent is already given so I shall enquire of the setting manager). Should the researcher witness any practice which cause concern it will be reported to the setting manager or relevant suitable person. If a child or member of staff makes a disclosure it will be reported to the setting manager. If needed concerns may be raised by contacting (for cause for concern about the settings practice) the Ofsted whistle blower helpline on: 0300 123 3155 (http://www.ofsted.gov.uk/contact-us/whistleblower-hotline) or whistleblowing@ofsted.gov.uk . If there is a concern about a child contact will be made to the Local Children's Safeguarding Board or the NSPCC Child Protection helpline: 0808 800 5000 www.nspcc.org.uk</p>		
12. Will informed consent of the participants be obtained and if so, how? NB: <i>Ethical approval should, in general, be sought before research participants are approached.</i>	Yes	
<p>Date consent obtained:</p> <p>Written or oral?</p> <p><i>(Please specify. Oral consent will not be considered adequate other than in exceptional circumstances and must be appropriately justified in your application - you may use Box 22 for this purpose)</i></p> <p>Copy of signed consent form attached?</p>	At outset	
	Written	
	Yes	
13. In legal terms, is there anyone whose permission has to be sought in order to conduct your study? e.g. parents/guardians of child participants.	Yes	
<p><i>Please give details:</i> Depending on who is present for observation or practice consent may need to be sought from parents (on behalf of children. In many settings blanket consent is already given so I shall enquire of the setting manager) or other adults who may be present.</p>		
<p>Date consent obtained:</p> <p>Written or oral?</p> <p><i>(Please specify. Oral consent will not be considered adequate other than in exceptional circumstances and must be appropriately justified in your application - you may use Box 22 for this purpose)</i></p> <p>Copy of signed consent form attached?</p>	At outset	
	Written	
	Yes	
14. Do you think you need to seek the permission of any other individuals or groups other than outlined in section 13? E.g. the Ethics Committee of partner or participating organisations.	No	
<p><i>Please give details:</i></p>		
<p>Date consent obtained:</p> <p>Written or oral?</p> <p><i>(Please specify. Oral consent will not be considered adequate other than in exceptional circumstances and must be appropriately justified in your application - you may use Box 22 for this purpose)</i></p> <p>Copy of signed consent form attached?</p>		
		N/A

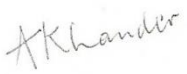
15. It is normally required that the confidentiality of participants is guaranteed at the outset of, during and after the research study. Will this be the case? If the answer is 'yes' please describe how you will be maintaining the confidentiality of participants. If the answer is 'no' please justify the exceptional circumstances that mean that confidentiality will not be guaranteed.	Yes
<p><i>Please provide details:</i></p> <p>The information collected will be in the form of interviews which will be digitally recorded and will be transcribed. There will also be data from the reflective diaries and observations of practice (may include photographs/video but will not include any children within the visual data), maps of the environment/resources and how this/these is used by the graduate leaders and children which will be used in the case studies. This data will be held electronically (where practical) and analysed accordingly. The data will be retained in its raw state on my home PC. This is not networked and is password protected. Anonymised data may be stored on a memory stick or on my personal drive of my University of Chichester computer but I will ensure that both are password protected. The data will be stored for five years after completion of my PhD. All data will be anonymised prior to being written up using a code to differentiate participants (e.g. L1, L2 etc. or pseudonym), this will include any details of the organisation the participant works for.</p>	
16. It is normally required that the anonymity of participants is maintained and/or that an individual's responses are not linked with their identity. Will this be the case? If the answer is 'yes' please describe how you will be maintaining the anonymity of participants. If the answer is 'no' please justify the circumstances that mean that anonymity will not be guaranteed.	Yes
<p><i>NB: in group studies it is likely that each individual in the group will be aware that others in the group are participating in the study – they are therefore not anonymous to each other. However, their identity should not normally be associated with their individual responses. In some studies individual participants may not want their identity known to other participants and the study must be designed and undertaken accordingly.</i></p>	
<p><i>Please provide details:</i></p> <p>All participants will be interviewed individually and data from interviews, observations, reflective diaries and visual methods will not be disclosed in its raw form.</p>	
17. It is normally expected that participants will have a right to comment or veto material you produce about them. Will this be the case in your study, please give details and if your answer is 'no' then please provide a justification.	Yes
<p><i>Please provide details:</i></p> <p>Interview transcripts will be made available if requested as will the observations of practice and participants can request an explanation of the data analysis from the researcher. As detailed in 9c. participants can withdraw their data before it is analysed (01 June 2016).</p>	
18. Does the project involve the use of or generation/creation of audio visual or electronic material directly relating to the participants?	Yes

<p><i>If yes, please describe how the collection and storage of this will be managed bearing in mind data protection and anonymity issues (see paragraphs 9.7 and 11.7 of the Ethical Policy Framework).</i></p> <p>The information collected will be in the form of interviews which will be digitally recorded and will be transcribed. There will also be data from the reflective diaries, photographs/videos (without children), maps of the environment/resources and how this/these is used by the graduate leaders and children and observations of practice which will be used in the case studies. This data will be held electronically (where practical) and analysed accordingly. The data will be retained in its raw state on my home PC. This is not networked and is password protected. Anonymised data may be stored on a memory stick or on my personal drive of my University of Chichester computer but I will ensure that both are password protected. The data will be stored for one year after completion of my PhD. All data will be anonymised prior to being written up using a code to differentiate participants (e.g. L1, L2 etc. or pseudonyms), this will include any details of the organisation the participant works for.</p>	
<p>19. Please outline how participants will be debriefed (Please refer to paragraph 10.2 of the Ethical Policy Framework for further guidance)</p> <p>Participants will be have the option to read my final draft of my PhD thesis. Participants will be made aware they can withdraw their data prior to the data analysis (01 June 2016) and can request information as detailed in section 16.</p>	
<p><i>End of section dedicated to studies involving human participants</i> <i>All applicants to complete questions 20a to 25</i></p>	
<p>20a. Might the research entail a higher than normal risk of damage to the reputation of the University, since it will be undertaken under its auspices? (e.g. <i>research with a country with questionable human rights, research with a tobacco company.</i>)</p>	<p>No</p>
<p>20b. If yes, please describe the potential risk to the University's reputation and how this risk will be mitigated.</p>	
<p>21. Will your results be available in the public arena? (e.g. publication in journals, books, shown or performed in a public space, presented at a conference, internet publication and placing a dissertation in the library)</p>	
<p>Yes</p>	
<p><i>If yes, please provide brief details:</i> There will be an opportunity to publish this research in journals, books, conferences, dissertation in library etc. at different stages of the study.</p>	
<p>22. Are there any additional comments or information you consider relevant, or any additional information that you require from the Committee?</p>	
<p>The methodology and ethical section of my thesis will demonstrate aspects discussed in this ethic form.</p>	
<p><i>For Authorisers:</i></p>	
<p>23. Please provide a comment on your assessment of the research project, and where necessary indicate what further information is required.</p>	

24. In your view, does the proposed study potentially contravene any aspect of established codes of practice in your discipline? (For instance, the codes of practice of the British Sociological Association, British Psychological Society, and British Education Research Association are available on the internet.)	No
25. If yes, please give details and identify issues you wish the Ethics Committee to discuss/resolve:	

Approval

Signature of Applicant:Nikki Fairchild..... Date: ...8th September 2013...updated 8/1/16

Signature of Authoriser:  Date: 8th September 2013 agreed 07/11/15 updated 9/1/16

I the Applicant ☒ and I the Authoriser ✓ have read the Ethical Policy Framework (*please tick*)

IF CATEGORY B: Signature of the Chair of the Ethics Committee (*or authorised signatory*)

Signature:

Date:

Research Study *Becoming Early Years Teacher - working in the middle* (working title)

Dear Graduate Leader

I wish to explore the experience of graduate leaders in Early Years settings with respect to their professional practice. The study will form the basis of my PhD, parts of which will be published in international academic journals or presented at international academic conferences. The study will consist of interviews, observations of your practice, photos/videos of your setting (no children will be included in the images) and a review of a reflective diary you will be asked to complete for the project. I will use the information collected to analyse and understand the key themes emerging from the variety of data. The project will involve:-

- An initial meeting with you to explain the study and conduct an interview and then to arrange a time to observe you in your setting. This observation will help me to explore and understand how you interact with children and the learning environment.
- You will be asked keep a reflective diary of critical incidents (which will be explained to you in the initial meeting) in respect of this project. There may be a second visit to you to discuss aspects of your reflective diary and any critical incidents which occur and observe your practice.
- A final meeting will be arranged approximately 6 months after the initial meeting for a final interview, observation of practice and a debrief of the critical incidents in the reflective diary a final copy of which will be kept by both the researcher and the participant.
- During the 6 months there will be regular contact with the researcher to discuss aspects of the project e.g. to discuss any critical incidents which may have occurred.

Information that arises from the research will be confidential and although anonymity is not fully guaranteed, should any of your data be used in my thesis, journal articles or conference presentations, your name, place of work and titles will be changed to a number to protect your identity. Your name will not be recorded on the written transcript used for the analysis of data and a number will differentiate people so L1, L2 etc. or pseudonyms will be used rather than names. This means that you as an individual will not be identifiable.

The research data (interview transcripts, observation notes, photos and extracts from the reflective diaries) will be held as a word, excel document or media file in a separate folder on a computer requiring security log in access meaning it can only be accessed by the me. During analysis, data may be viewed by the three members of my supervisory team but this material will have no names or personal information on at this stage. After the thesis, journal articles and/or conference papers have been written and after a period of 5 years the file containing the research data will be deleted and destroyed. In order to provide you with an indication of the research findings and recommendations you will be sent an executive summary of the findings

on request following successful completion of the study and attainment of the award respectively.

You do not have to give consent for your data to be used in this way and no other personal data will be used. Allowing your data to be used, or withholding your consent, will not affect your employment, any partnership agreement for placements/training with the University or the researchers' perceptions. Even if you give consent now, you are free to withdraw all or part of your data from the study at any time before data analysis (MPhil by 26 July 2015, PhD by 01 June 2016) without giving a reason but you will be unable to change the data.

You will be issued with a 'pdf' version of any interview transcripts and evaluations of your observation of practice, the researcher will ask you to confirm receipt of this 'pdf' and validate content and accuracy. Once again you are able to withdraw all or part your data from the study at any time before data analysis (MPhil by 26 July 2015, PhD by 01 June 2016) without giving a reason but you will be unable to change it.

Should the researcher witness any practice which causes concern it will be reported to the setting manager or relevant suitable person in the setting. If a child or member of staff makes a disclosure, or if a potential safeguarding issue is observed, it will be reported to the setting manager or relevant suitable person in the setting.

If you have further questions about this study or your rights, or have any concerns, you can contact the lead researcher, Nikki Fairchild, n.fairchild@chi.ac.uk (or telephone 01243 816287) or my supervisory team, Professor Janet McCray j.mccray@chi.ac.uk, Professor Vini Lander landerv@edgehill.ac.uk or Professor Ben Noys b.noys@chi.ac.uk.

I would be grateful if you would complete the attached form giving your informed consent for your data to be used.

Best Wishes



Nikki Fairchild,
Senior Lecturer, Department of Childhood, Social Work and Social Care, University of
Chichester,
01243 816287 e-mail - n.fairchild@chi.ac.uk

**Consent Form for Nicola Fairchild for MPhil leading to a PhD
commencing October 2013**

Childhood, Social Work and Social Care

E-mail: n.fairchild@chi.ac.uk

Tel: 01243 816287

PLEASE READ THE FOLLOWING CAREFULLY

Study title: Becoming Early Years Teacher - working in the middle (working title)

I have read and understand the information sheet for this research project. Yes No
I have had the opportunity to consider the information, ask questions and
have had these answered satisfactorily.

If you responded “Yes” to the above statement please complete the following:

- 1) I am happy to participate in this research Yes No
- 2) I understand that my participation in the activity is voluntary and that I am
therefore free to withdraw my involvement at any stage, without giving a
reason. Yes No
- 3) I understand that all information will be anonymised and that my personal
information will not be released to any third parties. Yes No
- 4) I understand that should the research witness any practice which causes
concern it will be reported to the setting manager or relevant suitable
person, this includes any potential safeguarding issues.
Yes No

Your name (please print).....

Your signature.....

Date.....

Thank you for your time

Visual media consent form – PhD Research
Early Years Teachers – Working in the Middle (Nikki Fairchild)

Dear

Many thanks for allowing me to visit your setting and the offer to supply photographs/to allow me to photograph the set-up of the classroom, garden, and the resources used in teaching. We discussed how these photographs would not include the children who attend the setting as my research is concerned with how Early Years Teachers use the environment and material resources in their teaching. Material resources could include items within the classroom/garden (such as books, items the children self-select or planned activities) or the impact of wider policy on teaching.

I would like to use these photos in interviews with you. During the interviews I will ask you to consider what the resources and environment ‘do’ to your teaching and the children you work with. I will also ask you to make wider links with policy and their teaching practice. These, in combination with the observations you were happy for me to make in the setting, form the data which will be used in the analysis of the research.

As part of my PhD I will produce a thesis for examination by external and internal supervisors. Additionally, some of the possible uses and outcomes of the research data could include presentations and publications in journals and books for academics and students.

I would like to use some photographs in my thesis and potentially in these (electronic and print) reports, presentations and publications. Real names will not be used with the photographs and the setting or location will not be identified. I may or may not publish your photographs, but in case I do I would be grateful if you would read the enclosed form and decide if you would give consent for me to use the images.

Please complete the form by signing one of the three boxes:

1. Sign box one if you give permission for me to publish the photos;
2. Sign box two if you give permission for me to publish some but not all of the photos. Please don't forget to state the numbers of the photos you give permission for me to use;
3. Sign box three if you would prefer me not to use the photos outside the PhD research and thesis.

Once completed, it would be helpful if you could return a signed copy of the form either by e-mail, in the post, or hand to me at my next visit (****). Please don't hesitate to contact me if you have any questions.

Thanks again for your contribution to the project.

Kind Regards,



Nikki Fairchild

Photo Reproduction Rights Form

PhD Research - Early Years Teachers – Working in the Middle (Nikki Fairchild)

This form refers to photographs that you supplied, or photographs that you allowed Nikki Fairchild to make, as part of her PhD research (Early Years Teachers – Working in the Middle) in which you have participated. All photographs will be securely stored by the researcher. As discussed with you, photographs may be shared within the research team (me and my internal and external supervisors) to help with the analysis. I would also like to use some photographs (in electronic or print form), in reports, presentations, publications and exhibitions arising from the project.

Please could you sign one of the boxes below to indicate whether or not you are happy for me to do this. I won't use any photographs outside the research team without your permission.

Please sign either 1, 2, or 3 below:

1. I give my consent for these photographs to be reproduced for educational and/or non-commercial purposes, in reports, presentations, publications, websites and exhibitions connected to the PhD Research. I understand that real names will NOT be used with the photographs.

Signed.....date.....

OR

If you would like to give permission for us to publish some, but not all, of the photos please list the numbers of the photos you will allow us to use:

2. I give my consent for photo numbers

.....
(Please specify)

to be reproduced (in electronic or print form), for educational and/or non-commercial purposes, in reports, presentations, publications, websites and exhibitions connected to the PhD Research. I understand that real names will NOT be used with the photographs.

Signed.....date.....

OR

3. I do not wish any of these photographs to be reproduced in connection with the PhD Research (apart from inclusion in the PhD thesis).

Signed.....date.....

Thank you for participating in my project. If you have any queries about this form or about the project or your participation in it, please do not hesitate to contact Nikki Fairchild, Telephone: 01243 816287, E-mail: n.fairchild@chi.ac.uk .

Appendix 2 – Case Study/Events

The four Early Years Teachers completed the relevant ethical approval paperwork and their details have been anonymised and they have been allocated a pseudonym, all efforts have been taken to ensure they cannot easily be identified.

Case study/event 1

Hannah worked as a Reception teacher and the Head of the Foundation Stage at an all-girls Private School in a city location in the South East of England. She had been employed there for 12 months and was responsible for the teaching of the Reception class and overseeing the nursery class. Both classes were located in a purpose-built separate building within the gardens of the School.



The Reception class ethos was built on the concepts of belonging and familiarity and the girls were encouraged to become more independent as they prepared for the transition to Key Stage 1 which was on the same school site.

The class followed the EYFS and adopted a High Scope Approach (Holt, 2010) where children were encouraged to plan and review their learning. It had regular adult interventions in maths and phonics to support aspects of the EYFS learning and development goals. The school was situated in a city of contrasts with streets of large old historic building which seemed to house those with considerable wealth, sandwiched between modern blocks of flats and housing estates. The school itself was built in the 1880's by a local philanthropist and was proud of its heritage.

Prior to her current role Hannah had been an Early Years Teacher consultant to a range of nurseries in the local area. Hannah gained her Early Years Professional Status in 2010 where she had joined the training pathway with limited professional practice experience and an unrelated first degree. She had knowledge of the Teachers Standards (Early Years) (DfE, 2013d) as she was an EYITT assessor and mentor.

Case study/event 2

At the time of the research Sarah was an Ofsted registered child-minder who looked after children within her own home which was based in a city in central South East England. She had been a child-minder since 2007 and attained Early Years Teacher Status in 2014 undertaking a six month pathway for experienced ECEC practitioners.

She was open during term time between the hours of 8 a.m. and 5 p.m. and saw the children in her care as part of the family unit wanting the children to feel that they belonged. Her rationale for this was to support children's emotional wellbeing, transitions and social development. She would take children between the ages of 6 months until compulsory schooling commenced. She detailed parents selected her setting as they were looking for a gentler environment, a smaller setting and the potential for their children to have more one to one time with her.

Sarah's setting was rated Ofsted Outstanding for the last two inspections. Although she was self-employed and saw herself as a lone worker she had built a strong network with two other child-minders which allowed her to have wider professional discussions and to share practice improvements.

Sarah completed Early Years Teacher Status after a recommendation from her Local Authority as a means to support and protect her business during the proposed introduction of Child-minder Agencies. Following the Early Years Teacher Status course Sarah reflected on how she could further improve her business, but decided that her next steps would come at a considerable personal investment and expense and felt it was time for her to change her role. She commenced Initial Teacher Training in September 2016 in a School at Key Stage 2 on a salaried route to QTS.

Case study/event 3



Rose was based in a pack away setting within a rural village in the South East of England.

Traditionally pack away settings are based within village halls and require staging and restaging each day. This setting was open term time and parents came from many locations to secure a place for their children. The setting followed the EYFS but was also a Montessori setting with the owner and manager a fully Montessori trained Early Years Teacher. Rose's role was that of Deputy Manager and Special Educational Needs Coordinator (SENCO) and she had been working there for five months at the time the research commenced.

Prior to working in her current role Rose had completed Early Years Initial Teacher

Training (EYITT) in 2015. She had attended the one year full time pathway for trainees with a limited experience of working in the early years. In the summer before she commenced EYITT she had worked as an outdoor coordinator at a large local Coastal Children and Family Centre in the South East of England. The ethos of this Centre was free flow and very child initiated.

Her previous role was a contrast to her current setting which, being in a village hall, was more structured and the space was used very differently. For example, children had planned time to be indoors and outdoors due to the operational use of the hall and the policy requirements for the number of qualified adults required with children (DfE, 2014a). Furthermore, the setting blended the Montessori philosophy and ethos with the EYFS which saw a more structured approach to learning where children took more responsibility for their own learning moments, guided by adults, and ensured their workspace was tidy after using relevant resources (Isaac, 2012).



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Claire was based in a semi-rural location in the South East of England. She had made a conscious decision not to work within the EYFS framework once completing Early Years Teacher Status (EYTS) in 2014. The pathway she had attended was developed for existing experienced practitioners and lasted six months. Prior to and during her EYTS training Claire had worked in nurseries and schools. Much of her previous employment focussed on different types of settings for example she ran a forest school group for toddlers and play sessions for local underprivileged children. She had also used her experience

of the outdoors to undertake forest school and beach school training.

At the time of the research Claire was working as a nanny for two children who were with her on Wednesdays and Thursdays. Additionally, she provided afterschool and holiday care for a number of families. On Mondays and Tuesdays, she worked as a lecturer at a local college supporting NVQ level 2 childcare students (although this role finished during the research project). Claire also had a consultancy project she was working on where she advised a chain of holiday parks on their children's areas and planned parent and child activities for the centres. She was also the person behind an imaginative outdoor activity experience for children which was based at an English festival. This experience included areas such as a mud café, woodland activities, a potions lab and story dens.

²² Image taken and provided by Claire.

Glossary

BERA - British Educational Research Association

BERA is a membership association and learned society committed to advancing research quality, building research capacity and fostering research engagement. BERA aims to inform the development of policy and practice by promoting the best quality evidence produced by educational research (sourced <https://www.bera.ac.uk/>)

CWDC - Childrens Workforce Development Council

The CWDC was responsible for ensuring that people working with children had the appropriate and necessary skills to do this. It was set up by the Labour Government (1997 – 2010) and closed in 2012. The CWDC drafted the document detailing the common core of skills required to work with children and was tasked to implement Early Years Professional Status.

DCSF - Department for Children, Schools and Families

Government department (between 2007 – 2010) under the Labour Government. Its remit was to produce and implement policy for children between the ages of birth to nineteen, this included both education and child protection (safeguarding).

DfES - Department of Education and Skills

Government department (between 2001 – 2007) under the Labour Government. Its remit was policy production and implementation for education (children from birth up to university) and child services.

DfE - Department for Education

Government Department under the Coalition (2010 – 2015) and Conservative Governments (2015 onwards). Its remit is children's services and education across the age phases including early years, primary and secondary school, higher and further education and apprenticeships.

ECEC - Early Childhood Education and Care

This term covers research and professional practice with young children in pre-compulsory education. In this UK, this is primarily centred on private, voluntary, independent and school providers and covers the age ranges birth to five (or the end of the Reception year in primary schools).

EYFS - Early Years Foundation Stage

The ECEC curriculum in England. This was derived from an amalgamation of Curriculum Guidance for the Foundation Stage and Birth to Three Matters. It was originally implemented in 2008 and had since had two revisions in 2014 and more recently in April 2017 to include updated policy developments.

EYITT - Early Years Initial Teacher Training

Post-graduate training programme for the award of Early Years Teacher Status. Training organisations are accredited by the DfE and assessed by Ofsted to ensure that the programme is delivered in a rigorous and controlled manner. Training providers could include Higher Education Institutions, Private Providers, Employers or Schools Based arrangements.

EYP - Early Years Professional

Post-graduate accreditation for working with children between the age ranges of birth to five. Graduates needed to meet thirty nine professional standards and demonstrate both leadership and professional practice. The resultant EYP was promoted as a change agent to upskill the workforce and to support the implementation of the then new EYFS. First EYP's were accredited in 2006 and the programme ceased in 2012 when it became Early Years Initial Teacher Training,

EYPS - Early Years Professional Status

The status awarded to all who had completed a recognised training programme and met the required standards. There were four routes into training which included pathways for existing ECEC practitioners and those new to the sector.

EYT - Early Years Teacher

Post-graduate accreditation for those who want to teach in the age ranges of birth to five. Graduates need to meet the eight Teachers' Standards (Early Years) and attend practice placements in compulsory education (primary key stages 1 and 2). This replaced the Early Years Professional accreditation and was implemented from September 2012.

EYTS - Early Years Teacher Status

The status awarded to all who had completed a recognised Early Years Initial Teacher Training programme. There were a range of training routes which include pathways for existing ECEC practitioners, those new to the sector and undergraduates studying an Early Childhood Studies degree.

NCTL - National College for Teaching and Leadership

Government executive agency currently sponsored by the DfE who is tasked with developing and recruiting a suitable, trained workforce to deliver across the age phases of Early Years, Primary and Secondary schools.

Ofsted - Office for Standards in Education, Children's Services and Skills

Ofsted is a non-ministerial department which inspects and regulates services that care for children and young people, and services providing education and skills for learners of all ages.

PPA - Preparation, Planning and Assessment time

The Workload Agreement (from September 2005) guaranteed teachers in maintained schools (those schools under Local Authority control) in England and Wales ten per cent of their timetabled teaching to be set aside as preparation, planning and assessment (PPA) time during the school day.

QTS - Qualified Teacher Status

A requirement to teach in maintained schools (those under Local Authority Control) in England and Wales. There are a range of different routes to the award of QTS but all trainees need to be assessed against the eight Teachers' Standards. QTS is not a requirement to teach in Independent schools and since 2012 it is not a requirement to teach in Academies (State funded schools directly funded by the DfE and out of Local Authority control).

RECE - Reconceptualizing Early Childhood Education

The reconceptualist movement gained momentum in the 1980s with work which questioned the promotion of universal prescriptions for "best practice" and other "grand narratives" which continue to dominate ECEC. Many of these scholars are doing anti-bias or cultural and gender focused research that seeks to appreciate and support diversity in people, ideas, and ways of being (see more at: <http://www.receinternational.org>)

TtT - Troops to Teachers

An entry point to QTS for ex-military personnel who do not hold an undergraduate degree. If the trainee meets the necessary entry requirements in two years they are awarded a degree and QTS following an accredited training programme based in schools and supported by agreed providers.

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